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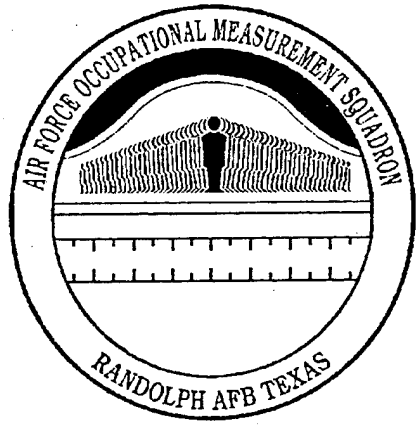

OCCUPATIONAL SURVEY REPORT

19960417 163

RADIO COMMUNICATIONS SYSTEMS

AFSC 3C1X1
(FORMERLY 492X1)

AFPT 90-3C1-023

APRIL 1996

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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TABLE OF CONTENTS

PAGE NUMBER

PREFACE vi

SUMMARY OF RESULTS viii

INTRODUCTION 1

Background 1

SURVEY METHODOLOGY 2

Inventory Development 2
Survey Administration 3
Survey Sample 3
Task Factor Administration 6

SPECIALTY JOBS (Career Ladder Structure) 6

Overview of Specialty Jobs 7
Group Descriptions 9
Comparison of Current Jobs to Previous Survey Findings 24
Summary 26

ANALYSIS OF DAFSC GROUPS 26

Skill-Level Descriptions 26
Summary 37

ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTION* 37

TRAINING ANALYSIS 37

First-Enlistment Personnel 37
Training Emphasis (TE) and Task Difficulty (TD) Data 39
Specialty Training Standard (STS) 47
Plan of Instruction (POI) 49

ANALYSIS OF MAJOR COMMANDS (MAJCOM) 49

JOB SATISFACTION ANALYSIS 54

IMPLICATIONS 54

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TABLE OF CONTENTS
(Tables, Figures, Appendices)

		PAGE NUMBER
TABLE 1	MAJCOM REPRESENTATION OF SAMPLE	4
TABLE 2	PAYGRADE DISTRIBUTION OF SURVEY SAMPLE	5
TABLE 3	RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS	10-12
TABLE 4	SELECTED BACKGROUND DATA FOR SPECIALTY JOBS	13-15
TABLE 5	SPECIALTY JOBS COMPARISON BETWEEN CURRENT AND 1988 SURVEYS	25
TABLE 6	DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS (PERCENT RESPONDING)	27
TABLE 7	RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS	28
TABLE 8	REPRESENTATIVE TASKS PERFORMED BY 3C131 PERSONNEL	30
TABLE 9	REPRESENTATIVE TASKS PERFORMED BY 3C151 PERSONNEL	31
TABLE 10	TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSCs 3C131 AND 3C151 PERSONNEL (PERCENT MEMBERS PERFORMING)	32
TABLE 11	REPRESENTATIVE TASKS PERFORMED BY 3C171 PERSONNEL	33
TABLE 12	TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSCs 3C151 AND 3C171 PERSONNEL (PERCENT MEMBERS PERFORMING)	34
TABLE 13	REPRESENTATIVE TASKS PERFORMED BY 3C191 PERSONNEL	35
TABLE 14	TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3C171 AND 3C191 PERSONNEL (PERCENT MEMBERS PERFORMING)	36
TABLE 15	RELATIVE PERCENT TIME SPENT ON DUTIES BY FIRST-ENLISTMENT PERSONNEL (N=195)	38
TABLE 16	REPRESENTATIVE TASKS PERFORMED BY 3C1X1 FIRST-ENLISTMENT PERSONNEL (N=195)	41
TABLE 17	EQUIPMENT USED OR OPERATED BY FIRST-ENLISTMENT PERSONNEL	42-44
TABLE 18	TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)	45
TABLE 19	TASKS RATED HIGH IN TASK DIFFICULTY (TD)	46
TABLE 20	EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)	48
TABLE 21	TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE 3C1X1 PERSONNEL AND NOT REFERENCED TO THE STS	50

TABLE OF CONTENTS (CONTINUED)
(Tables, Figures, Appendices)

		PAGE NUMBER
TABLE 22	EXAMPLES OF POI ELEMENTS NOT SUPPORTED BY OSR DATA (LESS THAN 30 PERCENT MEMBERS PERFORMING)	51-52
TABLE 23	PERCENTAGE OF TIME SPENT ON DUTIES BY MAJCOM GROUPS	53
TABLE 24	COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS GROUPS (PERCENT MEMBERS RESPONDING)	55
TABLE 25	COMPARISON OF CURRENT SURVEY AND 1988 TAFMS GROUPS (PERCENT MEMBERS RESPONDING)	56
TABLE 26	COMPARISONS OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS (PERCENT MEMBERS RESPONDING)	57-59
FIGURE 1	AFSC 3C1X1 CAREER LADDER JOBS	8
FIGURE 2	AFSC 3C1X1 FIRST ENLISTMENT JOBS	40
APPENDIX A	SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS	61

PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Radio Communications Systems career ladder, Air Force Specialty Code (AFSC) 3C1X1 (formerly AFSC 492X1). Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by Mr. Donald Cochran, Inventory Development Specialist, with computer programming support furnished by Mrs. Jeannie C. Guesman. Mr. Richard G. Ramos provided administrative support. Second Lieutenant Martin K. Topping, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Mr. James B. Keeth, Chief, Airman Analysis Section, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to AFOMS, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449 (DSN 487-6623).

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SUMMARY OF RESULTS

1. *Survey Coverage*: The Radio Communications Systems career ladder was surveyed to provide current job and task data for use in updating career ladder documents and training programs. Survey results are based on responses from 917 respondents, accounting for 67 percent of the total assigned population. All major using commands are well represented in the survey sample.

2. *Career Ladder Structure*: Structure analysis identified two job clusters and seven independent jobs: Analyst Job Cluster, Collection Manager Job, Supervisor Job Cluster, Technical Training Instructor Job, Facility Exploitation Manager (FEM) Job, Digital Intelligence Specialist Job, Reference/Intelligence Librarian Job, Superintendent Job, and Manager Job.

3. *Career Ladder Progression*: Distinctions between skill-level groups are evident, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks across a number of different jobs. Seven- and 9-skill levels are characterized by a shift from technical tasks to managerial and supervisory tasks.

4. *AFMAN 36-2108 Specialty Description*: The description accurately describes the technical and supervisory aspects of jobs at the various levels, but it fails to address telephone switchboard-oriented tasks.

5. *Training Analysis*: Overall, the AFSC 3C1X1 Specialty Training Standard, dated April 1994, was generally supported by the Occupational Survey Report data. The Plan of Instruction for the E3ABR3C131 course was also generally supported. Subject-matter experts, however, should closely review both documents for possible fine-tuning of content and proficiency codes.

6. *Job Satisfaction Analysis*: Overall job satisfaction was low across the entire career ladder, even at the senior levels. When compared to 1988 survey data, job satisfaction levels have dropped, especially for first-enlistment personnel. Less than half the personnel in many jobs found their work interesting or were satisfied with the sense of accomplishment gained from their work.

7. *Implications*: Survey results indicate the 3C1X1 career ladder structure is extremely diverse. In addition, personnel in many of the jobs did not find their jobs interesting. However, despite the diversity of work being performed, job progression shows a distinct pattern as one moves from the 3-skill to the 9-skill level. The AFMAN 36-2108 *Specialty Description* and the career ladder training documents, while generally supported by survey data, need to be reviewed.

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OCCUPATIONAL SURVEY REPORT (OSR)
RADIO COMMUNICATIONS SYSTEMS CAREER LADDER
(AFSC 3C1X1)

INTRODUCTION

This is a report of an occupational survey of the Radio Communications Systems career ladder completed by the Air Force Occupational Measurement Squadron (AFOMS). The survey was conducted as part of a 5-year production cycle. Data collected will be used to validate career ladder documents and training programs. This is the first survey of this AFSC since the renumbering of the career ladder from AFSC 492X1 to AFSC 3C1X1. The last occupational survey for this career ladder was published in November 1988.

Background

As described in the AFMAN 36-2108 *Specialty Description*, dated 31 October 1994, Radio Communications Systems members operate transmitting, receiving, and ancillary communications equipment in fixed and tactical environments. They operate radio and satellite communications systems and computer terminals. This includes tuning transmitters to proper frequencies and adjusting communications systems equipment, antenna systems, and teletype equipment to provide voice, digital, or analog operations. They perform equipment checks and minor maintenance as well as monitoring, analyzing, and translating transmissions.

AFSC 3C1X1 airmen are also responsible for processing communications traffic. They copy transmissions from air and ground stations. They process and relay operational, administrative, and morale messages. They also encode and decode classified messages and receive emergency and distress signals. AFSC 3C1X1 airmen maintain codes, authentication systems, communications directives, publications, and frequency propagation data. They also account for classified or controlled documents, equipment, and communications security materials.

In addition, these airmen review and evaluate radio operations. They identify and resolve operational problems. They also inspect radio operations activities and discuss corrective action with operations personnel. Finally, they are responsible for monitoring station management, training programs, and mission support.

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Entry into the career ladder currently requires an Armed Services Vocational Aptitude Battery administrative score of 45. The technical school for this career ladder is located at Keesler AFB in Biloxi, MS. Airmen entering this career ladder must first complete the 8-week Radio Communications Systems Apprentice course covering keyboarding, career progression, ground radio equipment, communications agencies, point-to-point operations, and Quality Air Force awareness. There is also a 7-skill level Radio Communications Systems Craftsman course.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Air Force Personnel Test (AFPT) 90-3C1-023, dated November 1994. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 64 subject-matter experts (SMEs) at the technical training location and at the following installations:

BASE	REASON FOR VISIT
Keesler AFB MS	Resident technical training location
Hurlburt Field FL	Special Operations Communications Flight (SOCF), highly mobile communications unit
Robins AFB GA	Transportable Communications Central, mobile combat communications unit
Elkhorn NE	Det. 2, 55 Global Communications Systems Squadron, some unique equipment
Offutt AFB NE	Air Force Satellite Communications (AFSATCOM), Giant Star operations, Secure Communications Operations (SCO), wide variety of duties performed
Andrews AFB MD	Mystic Star radio operators, Information and Telecommunications System for the American Air Forces (SITFAA), Military Affiliate Radio System (MARS)
Brandywine MD	Det. 2, 89 Communications Group, AFSATCOM

The resulting JI contains a comprehensive listing of 547 tasks grouped under 14 duty headings and a background section requesting such information as grade, duty title, organizational level, fixed communications systems used, deployable communications systems used, frequency bands used, equipment operated, and types of forms used.

Survey Administration

From March through June 1995, Survey Control Monitors at base training offices worldwide administered the inventory to eligible 3-, 5-, 7-, and 9-skill level DAFSC 3C1X1 personnel. Members eligible for the survey consisted of the total assigned population of the career ladder, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in the job less than 6 weeks. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX.

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across major commands (MAJCOM) and military paygrade groups. Table 1 reflects the percentage distribution, by MAJCOM, of assigned AFSC 3C1X1 personnel as of March 1995. The 917 respondents in the final sample represent 67 percent of the total assigned personnel and 74 percent of the total personnel surveyed. Table 2 reflects the paygrade distribution for these personnel. The survey sample is considered to be a satisfactory representation of the career ladder population.

TABLE 1

MAJCOM REPRESENTATION OF SAMPLE

COMMAND	PERCENT OF ASSIGNED*	PERCENT OF SAMPLE
ACC	32	29
AMC	23	24
USAFE	10	11
PACAF	9	12
AFSOC	7	3
AFSPACECOM	7	9
AFMC	5	6
AETC	2	1
CENTCOM	1	1
OTHER	4	4

TOTAL ASSIGNED* = 1,366
TOTAL SURVEYED** = 1,235
TOTAL IN SURVEY SAMPLE = 917
PERCENT OF ASSIGNED IN SAMPLE = 67%
PERCENT OF SURVEYED IN SAMPLE = 74%

* Assigned strength as of March 1995
** Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job

TABLE 2

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

GRADE	PERCENT OF ASSIGNED*	PERCENT OF SAMPLE
E-1 TO E-3	16	17
E-4	31	33
E-5	30	29
E-6	14	12
E-7	8	7
E-8	1	2

* Assigned strength as of March 1995

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 3C1X1 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). These booklets were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail within the report.

Training Emphasis (TE). TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 41 senior NCOs who completed a TE booklet were asked to select tasks they felt require some sort of structured training for entry-level personnel, and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. There was acceptable agreement among the 41 raters. The average TE rating was 2.39, with a standard deviation of 1.44. Any task with a TE rating of 3.83 or above is considered to have high TE.

Task Difficulty (TD). TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 43 senior NCOs who completed TD booklets were asked to rate the difficulty of each task using a 9-point scale (extremely low to extremely high). Interrater reliability for these raters was also acceptable. Ratings were standardized so tasks have an average difficulty of 5.00, with a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TE and TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

SPECIALTY JOBS
(Career Ladder Structure)

A USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Radio Communications Systems career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a *job*. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

Overview of Specialty Jobs

The analysis procedure described above identified 14 jobs within the survey sample. The division of jobs performed by AFSC 3C1X1 personnel is illustrated in Figure 1, and a listing of those jobs is provided below. The group (GP) or stage (ST) number shown beside each title is a reference to computer-printed information; the number of personnel in each group or stage (N) is also shown.

I. MILSTAR TERMINAL OPERATOR (GP0039, N=16)

II. TRAINING (ST0090, N=15)

III. SECURITY MANAGEMENT (ST0147, N=15)

IV. MAJCOM STAFF NCO (ST0128, N=14)

V. SUPERVISOR (ST0054, N=117)

VI. COMBAT CREW COMMUNICATIONS RADIO OPERATOR (ST0135, N=62)

VII. REGENCY NET RADIO OPERATOR (ST0124, N=7)

VIII. GLOBAL HF SYSTEMS RADIO OPERATOR (ST0073, N=236)

IX. AFSATCOM TERMINAL OPERATOR (ST0095, N=66)

X. SPECIAL OPERATIONS SQUADRON RADIO OPERATOR (ST0100, N=9)

XI. MOBILITY/TACTICAL RADIO OPERATOR (ST0080, N=140)

XII. MARS RADIO OPERATOR (ST0070, N=31)

AFSC 3C1X1
CAREER LADDER JOBS

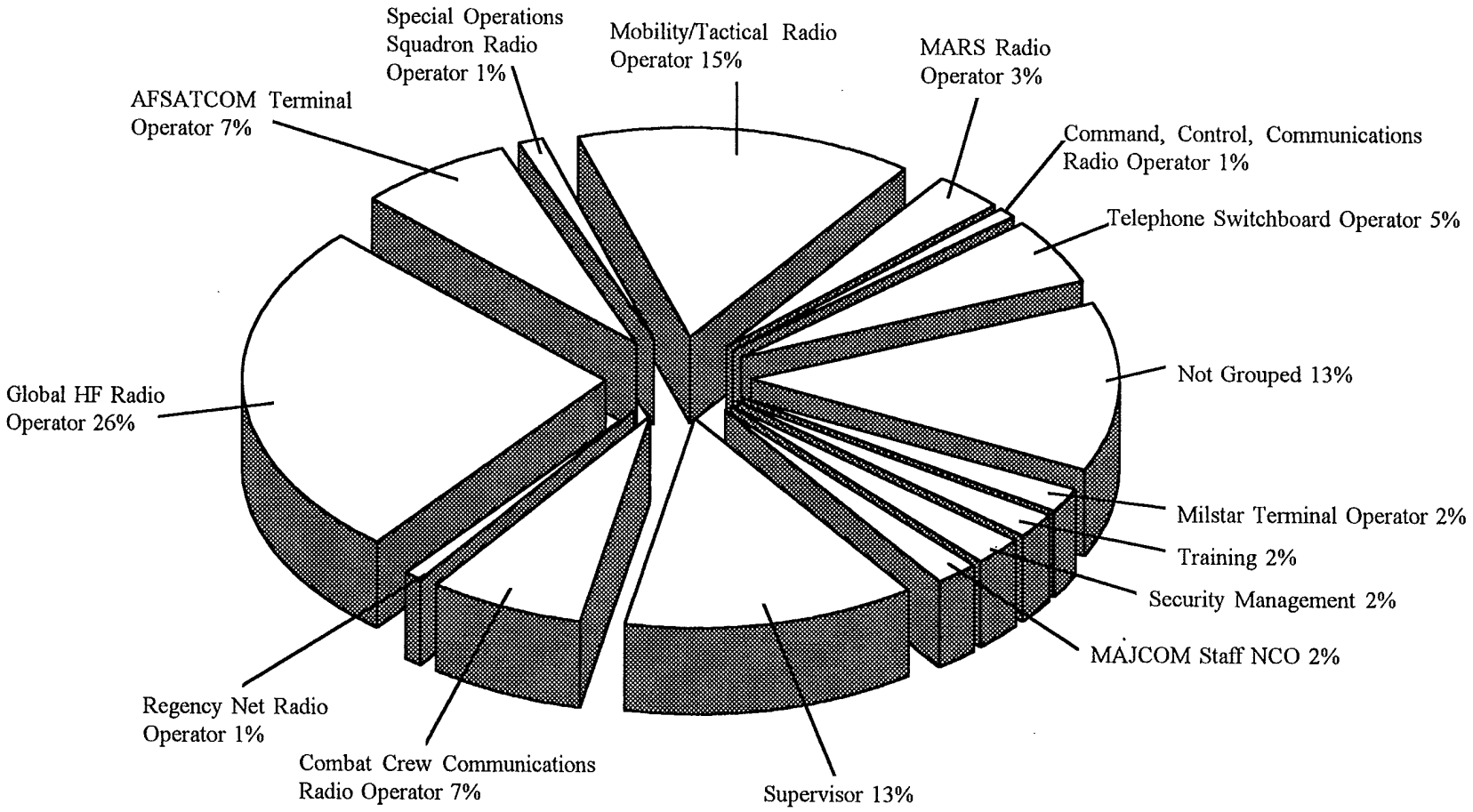

FIGURE 1

XIII. COMMAND, CONTROL, COMMUNICATIONS RADIO OPERATOR (ST0145, N=5)

XIV. TELEPHONE SWITCHBOARD OPERATOR (ST0052, N=49)

The respondents forming these jobs account for 85 percent of the survey sample. The remaining 15 percent were performing tasks or series of tasks which did not group with any of the defined jobs. Job titles given by respondents which were representative of these personnel include War Planner, Quality Advisor, Network Technician, and Deployment Planner.

Group Descriptions

The following paragraphs contain brief descriptions of the jobs identified through the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of these specialty jobs. Selected background data for these jobs are provided in Table 4. Representative tasks for all the jobs are contained in Appendix A.

I. MILSTAR TERMINAL OPERATOR (GP0039). These 16 airmen make up only 2 percent of the survey sample. They are all assigned to AFSPACECOM and perform tasks related to Milstar networks. High percentages of their time are spent performing AFSATCOM activities (see Table 3, Duty L) and general administrative tasks (see Table 3, Duty E). Typical tasks performed include:

inventory classified materials
log on or log off Milstar networks or satellites
set up or tear down Milstar networks
set up or tear down Milstar point-to-point calls
destroy classified materials
document destruction of classified materials
configure Milstar terminals as monitor net controller
load time standard modules
configure Milstar terminals as net control elements (NCEs)
enter date into time distribution subsystems (TDSs)

The majority of these airmen (63 percent) hold a 5-skill level DAFSC, while 31 percent have a 7-skill level DAFSC. The average time in the career field is 10 years. Very few of these personnel are in their first enlistment (6 percent). The paygrades range from E-2 to E-6, with E-4, E-5, and E-6 being the predominant paygrades. All of these members are assigned to units within the United States.

TABLE 3

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	MILSTAR TERMINAL OPERATOR (GP039, N=16)	TRAINING (ST090, N=15)	SECURITY MGT. (ST147, N=15)	MAJCOM STAFF NCO (ST128, N=14)	SUPV (ST054, N=117)
A ORGANIZING AND PLANNING	11	15	18	29	21
B DIRECTING AND IMPLEMENTING	3	5	5	7	11
C INSPECTING AND EVALUATING	5	7	9	15	16
D TRAINING	12	47	9	4	10
E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	26	22	42	40	22
F SETTING UP RADIO EQUIPMENT	4	1	6	1	3
G ADJUSTING AND CONFIGURING RADIO EQUIPMENT	5	-	2	-	1
H MAINTAINING RADIO EQUIPMENT	2	1	1	*	1
I OPERATING RADIO EQUIPMENT	2	*	1	1	-
J TROUBLESHOOTING RADIO EQUIPMENT	4	*	1	*	1
K PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	*	-	1	*	7
L PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	26	1	3	1	*
M OPERATING TELEPHONE SWITCHBOARDS	-	-	-	-	*
N PERFORMING MOBILITY AND SUPPORT ACTIVITIES	-	*	3	2	4

* Denotes less than .5 percent
- Denotes duty is not performed

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	COMBAT CREW COMM (ST135, N=62)	REGENCY NET RADIO OPERATOR (ST124, N=7)	GLOBAL HF RADIO OPERATOR (ST073, N=236)	AFSATCOM (ST095, N=66)	SPECIAL OPS SQ RAD OPER (ST100, N=9)
A ORGANIZING AND PLANNING	4	3	3	5	3
B DIRECTING AND IMPLEMENTING	1	3	2	3	2
C INSPECTING AND EVALUATING	2	8	3	5	*
D TRAINING	3	2	4	6	2
E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	27	37	22	25	36
F SETTING UP RADIO EQUIPMENT	3	11	13	5	19
G ADJUSTING AND CONFIGURING RADIO EQUIPMENT	*	6	11	5	6
H MAINTAINING RADIO EQUIPMENT	1	5	6	4	3
I OPERATING RADIO EQUIPMENT	1	11	27	12	18
J TROUBLESHOOTING RADIO EQUIPMENT	*	10	7	5	2
K PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	53	-	*	1	1
L PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	1	3	*	23	1
M OPERATING TELEPHONE SWITCHBOARDS	1	-	1	1	*
N PERFORMING MOBILITY AND SUPPORT ACTIVITIES	1	1	*	1	7

* Denotes less than .5 percent
- Denotes duty is not performed

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	MOBILITY/ TACTICAL RAD OPER (ST080, N=140)	MARS RADIO OPERATOR (ST070, N=31)	CMD, CONT, COMMUN (ST145, N=5)	TELEPHN SWTCHBRD OPERATOR (ST052, N=49)
A ORGANIZING AND PLANNING	6	4	-	6
B DIRECTING AND IMPLEMENTING	3	2	-	4
C INSPECTING AND EVALUATING	4	4	-	5
D TRAINING	5	4	1	9
E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	13	25	13	13
F SETTING UP RADIO EQUIPMENT	31	10	66	2
G ADJUSTING AND CONFIGURING RADIO EQUIPMENT	6	10	2	1
H MAINTAINING RADIO EQUIPMENT	6	3	6	2
I OPERATING RADIO EQUIPMENT	9	32	9	3
J TROUBLESHOOTING RADIO EQUIPMENT	4	2	1	1
K PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	1	*	-	*
L PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	1	*	2	1
M OPERATING TELEPHONE SWITCHBOARDS	1	3	-	52
N PERFORMING MOBILITY AND SUPPORT ACTIVITIES	12	*	1	1

* Denotes less than .5 percent
- Denotes duty is not performed

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	MILSTAR TERMINAL OPERATOR (GP039)	TRAINING (ST090)	SECURITY MGT (ST147)	MAJCOM STAFF NCO (ST128)	SUPERVISOR (ST054)
NUMBER IN GROUP	16	15	15	14	117
PERCENT OF SAMPLE	2%	2%	2%	2%	13%
PERCENT IN CONUS	100%	93%	87%	93%	75%
DAFSC DISTRIBUTION:					
3C131	6%	0%	7%	0%	1%
3C151	63%	40%	67%	21%	37%
3C171	31%	60%	27%	71%	59%
3C191	0%	0%	0%	7%	3%
PREDOMINANT GRADE(S)	E-4, E-5, E-6	E-5, E-6	E-4, E-5, E-6	E-7	E-7, E-5, E-6
AVERAGE MONTHS IN CAREER FIELD	120	150	112	191	159
AVERAGE MONTHS IN SERVICE	125	165	119	206	177
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS)	6%	7%	7%	0%	1%
PERCENT SUPERVISING	25%	27%	7%	14%	87%
AVERAGE NUMBER OF TASKS PERFORMED	50	39	56	57	109

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	COMBAT CREW COMM (ST135)	REGENCY NET RADIO OPERATOR (ST124)	GLOBAL HF RADIO OPERATOR (ST073)	AFSATCOM (ST095)	SPECIAL OPS SQ RAD OPERATOR (ST100)
NUMBER IN GROUP	62	7	236	66	9
PERCENT OF SAMPLE	7%	1%	26%	7%	1%
PERCENT IN CONUS	85%	14%	47%	85%	33%
DAFSC DISTRIBUTION:					
3C131	18%	0%	23%	18%	11%
3C151	81%	100%	72%	76%	89%
3C171	2%	0%	5%	6%	0%
3C191	0%	0%	0%	0%	0%
PREDOMINANT GRADE(S)	E-4	E-5	E-4, E-3	E-4, E-5	E-4
AVERAGE MONTHS IN CAREER FIELD	72	98	77	88	69
AVERAGE MONTHS IN SERVICE	82	105	88	93	78
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS)	29%	0%	24%	16%	11%
PERCENT SUPERVISING	21%	57%	39%	52%	0%
AVERAGE NUMBER OF TASKS PERFORMED	45	36	70	84	57

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	MOBILITY TACTICAL RAD OPER (ST080)	MARS OPERATOR (ST070)	CMD, CNTL, COMMUN RAD OPER (ST145)	TELEPHONE SWITCHBOARD OPERATOR (ST052)
NUMBER IN GROUP	140	31	5	49
PERCENT OF SAMPLE	15%	3%	1%	5%
PERCENT IN CONUS	79%	81%	100%	96%
DAFSC DISTRIBUTION:				
3C131	11%	71%	40%	41%
3C151	72%	29%	60%	51%
3C171	16%	0%	0%	8%
3C191	1%	0%	0%	0%
PREDOMINANT GRADE(S)	E-5, E-4	E-2, E-3, E-4	E-4	E-4, E-3, E-5
AVERAGE MONTHS IN CAREER FIELD	95	35	40	68
AVERAGE MONTHS IN SERVICE	106	36	41	75
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS)	20%	74%	40%	42%
PERCENT SUPERVISING	46%	16%	20%	39%
AVERAGE NUMBER OF TASKS PERFORMED	134	41	19	40

II. TRAINING (ST0090). Comprising 2 percent of the survey sample, these 15 airmen are responsible for preparing and conducting training. Six of the 15 members in this job are stationed at Keesler AFB and serve as instructors in the formal tech training school. The rest come from a variety of bases and are involved primarily with localized training, such as OJT. Distinctive tasks performed include:

construct or develop training materials or aids
evaluate training methods or techniques
evaluate effectiveness of training programs
brief organizational personnel on training programs or matters
conduct training conferences, briefings, or debriefings
establish or maintain study reference files
maintain training records, charts, graphs, or files
develop or prepare lesson plans
evaluate personnel for training needs
implement training programs

Sixty percent of these members hold a 7-skill level DAFSC. Consequently, average time in the career field is fairly high at 12 years, 6 months. The predominant paygrades are E-5 and E-6. Forty percent of these 15 airmen are in AETC, while the rest are divided among AMC, ACC, and PACAF.

III. SECURITY MANAGEMENT (ST0147). The 15 members (2 percent of the survey sample) forming this job are differentiated because of their performance of tasks pertaining to security-related items. Such items include access lists, safes, locks, and classified materials. Security Manager and Communications Security (COMSEC) Responsible Officer was a typical job title reported by the members. Commonly performed tasks include:

destroy classified materials
document destruction of classified materials
maintain classified materials
maintain security forms for safes, containers, or rooms
maintain accountability records for classified materials or documents
establish access lists
change safe or lock combinations
inventory classified materials
update access lists
verify accuracy of access lists

establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)
transport classified materials
compile information for records, reports, or logs
establish accountability records for classified materials or documents

Sixty-seven percent of the members of this job hold a 5-skill level DAFSC, while 27 percent hold a 7-skill level. Predominant paygrades are E-4, E-5, and E-6. Only 7 percent are in their first enlistment. Average time in service is almost 10 years.

IV. MAJCOM STAFF NCO (ST0128). This job, comprised of 14 members, makes up 2 percent of the survey sample. These members perform tasks that are typically managerial and administrative in nature. Forty percent of their time is spent performing general administrative and supply activities, while 29 percent is spent organizing and planning. Only 5 percent of their time is spent on technical tasks (see Table 3). Superintendents, managers, and planners are typical job titles reported by group members. Typical tasks which characterize this job include:

participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting
draft or write classified reports, messages, or documents
review drafts of regulations, manuals, or other directives
destroy classified materials
maintain classified materials
plan communications support for exercises or special missions
plan or prepare briefings
change safe or lock combinations
draft requests for TDY orders, passports, or visas
initiate electronic mail (E-mail)
determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies
evaluate communications operations

Members of this group are largely senior in grade, with 71 percent holding a 7-skill level, and 7 percent holding a 9-skill level. Although the paygrades range from E-5 to E-8, 50 percent of the group are in paygrade E-7. Average time in the career field is almost 16 years and average time in service is over 17 years. None of these airmen are in their first enlistment.

V. SUPERVISOR (ST0054). The 117 members of this job make up 13 percent of the survey sample, the third largest specialty job. Like the MAJCOM Staff NCO group, members perform higher-level administrative and managerial duties, but they differ in that they are responsible for the day-to-day supervising of lower-grade airmen. Consequently, they spend 17 percent of their relative time on technical tasks, as opposed to the 5 percent spent by members of the MAJCOM staff NCO job. Also, members of the job reported performing a high average number of tasks (109), the second highest of all jobs identified. Typical tasks include:

participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting
counsel personnel on personal or military-related matters
determine or establish work priorities
write EPRs
establish performance standards for subordinates
conduct performance feedback worksheet (PFW) evaluation sessions
evaluate personnel for compliance with performance standards
write recommendations for awards or decorations
plan or prepare briefings
plan or schedule work assignments or priorities
evaluate personnel for promotion, demotion, reclassification, or special awards
establish work methods or procedures
establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)
conduct supervisory orientations of newly assigned personnel

This specialty job is also composed primarily of upper-level personnel, with 59 percent holding a 7-skill level. The predominant paygrades are E-5, E-6, and E-7. Average time in the career field is over 13 years, and average time in service is almost 15 years. Eighty-seven percent supervise other airmen.

VI. COMBAT CREW COMMUNICATIONS RADIO OPERATOR (ST0135). The 62 members of this group, making up 7 percent of the survey sample, are responsible for performing Combat Crew Communications activities, such as training air and missile crews on radio procedures and constructing communications kits for air and missile crews. Fifty-three percent of their time is spent on such tasks (see Table 3, Duty K). Common tasks for this job include:

issue communication kits
breakdown communication kits
inventory COMSEC materials
issue FLIPs
assemble flight information publication (FLIP) bags
assemble peacetime communication kits
update FLIPs
assemble special mission kits
retrieve communication kits
retrieve FLIPs
destroy classified materials
file communications kit materials
review flying schedules
brief aircrews on peacetime communications procedures
inventory classified materials

Eighty-one percent of the members of this job hold a 5-skill level. The most predominant paygrade is E-4. Fifty-two percent of the group are in ACC.

VII. REGENCY NET RADIO OPERATOR (ST0124). This small group of radio operators has 7 members and makes up 1 percent of the survey sample. They perform many of the same tasks as other radio operators, but they are distinguished by their utilization of Regency Net systems, which are being employed at overseas locations. Some of their most commonly performed tasks include:

destroy classified materials
document destruction of classified materials
inventory classified materials
maintain master station logs
verify keying of cryptological equipment
conduct phone patches manually
identify and report equipment or supply problems
inventory equipment, tools, or supplies
receive, transmit, or relay emergency action messages (EAMs)
supervise Radio Communications Systems Journeymen (AFSC 3C151)
conduct performance feedback worksheet (PFW) evaluation sessions

Most of these members are located overseas, with only 14 percent of the group stationed within the United States. Every member of the group is at a 5-skill level. Most of the airmen in this job are in paygrade E-5. Fifty-seven percent of the members are in USAFE, and 57 percent of the group supervise other airmen.

VIII. GLOBAL HF SYSTEMS RADIO OPERATOR (ST0073). The 236 members in this job make up 26 percent of the survey sample, making this the largest specialty job identified, and forming the core job area of the career field. Members work primarily with the Global HF system, which is in widespread use both in CONUS and overseas. They are responsible for sending, receiving, and relaying point-to-point messages, and transmitting high-precedence broadcasts. They perform a wide variety of tasks including:

perform radio checks
destroy classified materials
receive, transmit, or relay emergency action messages (EAMs)
authenticate message traffic using transmission authentication systems
perform time hacks
receive, transmit, or relay foxtrot broadcasts
authenticate stations using challenge-and-reply systems
set station clocks
inventory classified materials
rotate antennas using radio dial codes
document destruction of classified materials

Within this specialty job, 72 percent of the members maintain a 5-skill level DAFSC and on the average are in paygrades E-3 or E-4. Less than half (47 percent) of the group is assigned within the CONUS. The members are spread out across numerous MAJCOMs, including PACAF, USAFE, ACC, AFMC, and AMC.

Although the majority of members in this job utilize the Global HF system, a small group of 16 airmen reported working with the Mystic Star system. Also called Presidential Radio Operators, this small group of airmen are stationed at Andrews AFB MD. They provide secure voice and teletype communications to special mission aircraft, such as Air Force One and the National Emergency Airborne Command Post.

IX. AFSATCOM TERMINAL OPERATOR (ST0095). This group of 66 airmen make up 7 percent of the survey sample. They are considered radio operators like the last two groups, but they distinguish themselves from the others by their performance of SATCOM duties. Twenty-three percent of their time is directed towards SATCOM duties. Some of the tasks typical to this group are:

destroy classified materials
inventory classified materials
configure consoles or terminals for secure or nonsecure voice or data communications
operate status display units (SDUs)
reset EAM alarms
configure SATCOM systems for time division multiplex (TDM) mode I operations
initiate or terminate satellite commands
receive, transmit, or relay emergency action messages (EAMs)
enter SATCOM messages into storage
load SATCOM command post synchronizers
maintain master station logs
configure SATCOM systems for random operations
transmit SATCOM messages

The members of this specialty job are predominantly in paygrades E-4 and E-5, and 76 percent of them are at a 5-skill level. They have an average 93 months in service, and 52 percent of the group supervise other airmen.

X. SPECIAL OPERATIONS SQUADRON RADIO OPERATOR (ST0100). This small group of 9 radio operators makes up 1 percent of the total survey sample. They spend much of their time setting up and operating radio equipment, as well as performing general administrative and supply activities. Members of this group describe themselves using one of two job titles: Special Operations Squadron Radio Operator or Operations Center Command Controller. Tasks common to this group include:

destroy classified materials
perform radio checks
inventory classified materials
receive and relay aircraft emergencies
receive, transmit, or relay facsimile messages
document destruction of classified materials
maintain classified materials
maintain master station logs
connect or disconnect antennas to radio equipment
key secure cryptographic systems
receive and relay departure reports

compile information for records, reports, or logs
load or unload radio equipment
configure transceivers for secure voice operations

This group of predominantly E-4 personnel is primarily stationed overseas, with only 33 percent in CONUS. Eighty-nine percent of the members have achieved a 5-skill level. No members of the group supervise other airmen.

XI. MOBILITY/TACTICAL RADIO OPERATOR (ST0080). This is the second largest job performed by AFSC 3C1X1 personnel. It consists of 140 airmen, comprising 15 percent of the total population. They perform a wide variety of duties, the most predominant of which is setting up radio equipment, taking up 31 percent of their time. They utilize mobile systems such as mobile SATCOM units and portable transceivers. Some of their typical tasks performed include:

connect or disconnect antennas to radio equipment
connect or disconnect antenna couplers
set up antenna masts
load or unload radio equipment
adjust antenna guy lines or ropes
perform radio checks
connect or disconnect auxiliary mobile field generators
orient high frequency (HF) tactical antennas
set up HF whip antennas
connect or disconnect cryptographic equipment
maintain personal mobility bags
set up HF dipole antennas
pack or unpack pallets
perform operational checks of radio systems

Seventy-two percent are at the 5-skill level. The predominant paygrades are E-4 and E-5. A unique characteristic of this group is that they perform an average of 134 tasks, higher than any other job. Seventy-nine percent of the members are stationed in CONUS, and they have an average 106 months in service.

XII. MARS RADIO OPERATOR (ST0070). This job of 31 airmen makes up 3 percent of the survey sample. Their most commonly performed tasks are typical of most radio operators, but they are distinguished by their use of MARS equipment. Some of these tasks include:

perform radio checks
check stations into or out of the net
conduct net roll calls
maintain master station logs
conduct phone patches manually
list traffic with net control stations
set station clocks
direct users to tune to your count
prepare messages using HF voice format
maintain position logs
notify stations of frequency changes
monitor frequency standards of stations on net

The members of this specialty job make up the youngest group of all jobs identified. Seventy-one percent hold a 3-skill level, and the rest are 5-skill levels. Predominant paygrades are E-2 through E-4. Seventy-four percent of the group are in their first enlistment, and average time in the service is not quite 3 years.

XIII. COMMAND, CONTROL, COMMUNICATIONS RADIO OPERATOR (ST0145). These five airmen make up the smallest group in the career ladder. They compose 1 percent of the survey sample. Sixty-six percent of their time is spent setting up radio equipment, a very high percentage when compared to other specialty jobs. Commonly performed tasks include:

connect or disconnect antennas to radio equipment
connect or disconnect antenna couplers
set up antenna masts
set up HF dipole antennas
set up HF inverted V antennas
set up HF long wire antennas, other than sloping long wire
set up HF sloping V antennas
destroy classified materials
maintain position logs
connect or disconnect auxiliary mobile field generators
key secure cryptographic systems
load or unload radio equipment
set up HF inverted L antennas
tune transceivers to obtain readable signals

This is also a young group of airmen. Forty percent of the group are at the 3-skill level, while the remainder are at the 5-skill level. E-4 is the predominant paygrade. Forty percent of the specialty job members are in their first enlistment. They perform an average of 19 tasks, the least number of tasks performed when compared to all other groups. Sixty percent of the group are in AFSPACECOM, and the remaining 40 percent are in ACC.

XIV. TELEPHONE SWITCHBOARD OPERATOR (ST0052). This group of 49 airmen makes up 5 percent of the survey sample. They are unique in that they spend 52 percent of their time operating telephone switchboards rather than radio systems. This group also contains four Communications Controllers stationed at Scott AFB whose jobs are very similar to that of a switchboard operator. Some distinguishing tasks of this job are:

accept and connect calls
place calls
set up telephone conference calls
initiate high-precedence calls
coordinate switchboard circuit or equipment problems with maintenance, technical control, or support agencies
maintain telephone directories
reroute calls
maintain switchboard instructions for emergencies, such as fire, crash, or attack
monitor high-precedence or emergency calls
compile telephone directories
test switchboard circuits
answer supervisory lights
supervise minimize condition actions

This job consists of 41 percent 3-skill levels and 51 percent 5-skill levels. The predominant paygrades are E-3, E-4, and E-5. Although they have over 6 years average time in the service, 42 percent are in their first enlistment.

Comparison of Current Jobs to Previous Survey Findings

The results of the specialty job analysis were compared to those of OSR AFPT 90-293-302, Communications Systems Radio Operator (old AFSC 492X1), published in 1988. After reviewing the tasks comprising the jobs identified in 1988, most of the groups could be linked to similar jobs in the current study (see Table 5).

TABLE 5

SPECIALTY JOBS COMPARISON BETWEEN CURRENT AND 1988 SURVEYS

CURRENT SURVEY (N=917)	PERCENT OF SAMPLE	1988 SURVEY (N=1,198)	PERCENT OF SAMPLE
I. MILSTAR TERMINAL OPERATOR	2	NOT IDENTIFIED	-
II. TRAINING	2	TECHNICAL SCHOOL INSTRUCTORS	1
III. SECURITY MANAGEMENT	2	NOT IDENTIFIED	-
IV. MAJCOM STAFF NCO	2	STAFF NCOs	7
V. SUPERVISOR	13	FIRST-LINE SUPERVISORS	10
VI. COMBAT CREW COMMUNICATIONS	7	COMBAT CREW COMMUNICATIONS (CCC) SPECIALISTS	13
VII. REGENCY NET RADIO OPERATOR	1	NOT IDENTIFIED	-
VIII. GLOBAL HF SYSTEMS RADIO OPERATOR	26	MYSTIC STAR (PRESIDENTIAL OR VIP) RADIO OPERATORS	2
		COMMAND AND CONTROL PERSONNEL	33
IX. AFSATCOM TERMINAL OPERATORS	7	AFSATCOM TERMINAL OPERATORS	6
X. SPECIAL OPERATIONS RADIO OPERATOR	1	NOT IDENTIFIED	-
XI. MOBILITY/TACTICAL RADIO OPERATORS	15	SPECIAL APPLICATIONS PERSONNEL	17
XII. MARS OPERATOR	3	MILITARY AFFILIATED RADIO SYSTEM (MARS)/INTER-AMERICAN TELECOMMUNICATIONS SYSTEM (SITFA) RADIO OPERATORS/USSOUTHCOM (MRS)	5
XIII. COMMAND, CONTROL, COMMUNICATIONS RADIO OPERATOR	1	NOT IDENTIFIED	-
XIV. TELEPHONE SWITCHBOARD OPERATOR	5	TACTICAL SWITCHBOARD OPERATORS	1
		AIR SUPPORT OPERATIONS CENTER (ASOC) SQUADRON PERSONNEL	1
NOT IDENTIFIED	-	WEATHER INTERCEPT OPERATORS	1

Nine of the 14 jobs in the current study were also identified in 1988. The five jobs that were not identified in the last survey are: Milstar Terminal Operator, Security Management, Regency Net Radio Operator, Special Operations Radio Operator, and Command, Control, Communications Radio Operator. The only job that was identified in the 1988 survey that was not identified in the current study is Weather Intercept Operator. All 6 of these jobs only make up 1 or 2 percent of the total sample for the current survey, indicating that the overall career ladder has not changed a great deal since 1988.

Summary

Fourteen jobs were identified in the career ladder structure analysis. Nine of the jobs were directly involved in performing the technical duties and tasks pertaining to the operation of various types of radio equipment. One job, Telephone Switchboard Operator, was unique because of its concentration of activities involved in telephone switchboard equipment rather than radio equipment. The remaining four jobs were characterized by staff, supervisory, or training activities.

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions* and the Specialty Training Standard (STS), reflect what career ladder personnel are actually doing in the field.

The distribution of skill-level groups across the career ladder jobs is displayed in Table 6, while Table 7 offers another perspective by displaying the relative time spent on each duty across the skill-level groups. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move upward toward the 7- and 9-skill level. It is also obvious, though, that 7-skill level personnel are still somewhat involved with technical task performance, and the 9-skill level members are the primary managers in the career ladder.

Skill-Level Descriptions

DAFSC 3C131. The 170 airmen reporting holding the 3-skill level (representing 19 percent of the survey sample) performed an average of only 46 tasks. Performing a highly technical job, 72 percent of their relative duty time is devoted to tasks covering operation and maintenance of radio communications systems. Tasks involving general administrative functions accounted for

TABLE 6

DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

SPECIALTY JOBS		DAFSC 3C131 (N=170)	DAFSC 3C151 (N=566)	DAFSC 3C171 (N=172)	DAFSC 3C191 (N=9)
I.	MILSTAR TERMINAL OPERATOR	1	2	3	0
II.	TRAINING	0	1	5	0
III.	SECURITY MANAGEMENT	1	2	2	0
IV.	MAJCOM STAFF NCO	0	1	6	11
V.	SUPERVISOR	1	8	40	44
VI.	COMBAT CREW COMMUNICATIONS RADIO OPERATOR	7	9	1	0
VII.	REGENCY NET RADIO OPERATOR	0	1	0	0
VIII.	GLOBAL HF RADIO OPERATOR	32	30	6	0
IX.	AFSATCOM TERMINAL OPERATOR	7	9	2	0
X.	SPECIAL OPERATIONS SQUADRON RADIO OPERATOR	1	1	0	0
XI.	MOBILITY/TACTICAL RADIO OPERATOR	9	18	13	11
XII.	MARS RADIO OPERATOR	13	2	0	0
XIII.	COMMAND, CONTROL, COMMUNICATIONS RADIO OPERATOR	1	1	0	0
XIV.	TELEPHONE SWITCHBOARD OPERATOR	12	4	2	0
	NOT GROUPED	15	11	20	34

TABLE 7

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	DAFSC 3C131 (N=170)	DAFSC 3C151 (N=566)	DAFSC 3C171 (N=172)	DAFSC 3C191 (N=9)
A ORGANIZING AND PLANNING	3	7	22	31
B DIRECTING AND IMPLEMENTING	1	3	9	15
C INSPECTING AND EVALUATING	1	5	14	26
D TRAINING	2	7	10	3
E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	21	23	24	19
F SETTING UP RADIO EQUIPMENT	14	13	5	3
G ADJUSTING AND CONFIGURING RADIO EQUIPMENT	8	6	2	1
H MAINTAINING RADIO EQUIPMENT	4	4	2	*
I OPERATING RADIO EQUIPMENT	22	12	3	1
J TROUBLESHOOTING RADIO EQUIPMENT	4	4	2	-
K PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	4	6	2	-
L PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	4	3	2	1
M OPERATING TELEPHONE SWITCHBOARDS	11	3	1	-
N PERFORMING MOBILITY AND SUPPORT ACTIVITIES	1	3	3	1

* Denotes less than .5 percent
- Denotes duty is not performed

another 21 percent of their time (see Table 7). As shown in Table 6, personnel in this group are well represented in six technical jobs, with the largest numbers in the Global HF Radio Operator (32 percent), MARS Radio Operator (13 percent), and Telephone Switchboard Operator (12 percent) Jobs. Table 8 displays representative tasks performed by the highest percentages of these airmen. A review of all the tasks performed by group members revealed that only 3 tasks are performed by 50 percent or more of this group. This low number of common tasks performed by these airmen indicates extremely diverse jobs being performed at this level.

DAFSC 3C151. Five-skill level personnel (62 percent of the survey sample) perform many of the same tasks as DAFSC 3C131 personnel. The scope of the job performed by these airmen is somewhat greater than that of the 3-skill level group (77 tasks versus an average of only 46 tasks, respectively). Five-skill level personnel are represented in all 14 of the specialty jobs, but they are best represented in the Global HF Radio Operator (30 percent) and Mobility/Tactical Radio Operator (18 percent) jobs (see Table 6). Fifty-four percent of their relative time is spent on duties directly involved in the technical aspects of operating and maintaining radio communications equipment, while 45 percent of their relative time is spent on administrative and supervisory-related tasks. Table 9 displays selected representative tasks performed by the highest percentages of these airmen. Table 10 displays those tasks which reflect differences between the 3- and 5-skill level groups. This table reveals that 5-skill level members are doing all the tasks that 3-skill level members are performing, but they are doing additional tasks that 3-skill level personnel are not performing. Career ladder diversity is also a factor for 5-skill level personnel, since only 10 tasks are performed by 50 percent or more of these airmen.

DAFSC 3C171. Representing 19 percent of the survey sample, these NCOs perform an average of 87 tasks. With only 22 percent of their relative time devoted to technical duties, 7-skill level personnel are involved more in the upper-level managerial, supervisory, and training duties. According to Table 6, 40 percent of 7-skill level personnel are in the Supervisor Job. Thirteen percent fall into the Mobility/Tactical Radio Operator Job. Table 11 reflects commonly performed tasks. Nearly all of the tasks listed are supervisory or administrative in nature. Table 12 lists the tasks that show the major differences between 7-skill and 5-skill level groups. The managerial role that 7-skill level personnel perform is the main distinguishing feature between them and the 5-skill level members. The career ladder diversity noted in the 3- and 5-skill level jobs is also a factor for 7-skill level members, with only 21 tasks being performed by 50 percent or more of the group.

DAFSC 3C191. As is typical in most career ladders, personnel in the 9-skill level DAFSC reported performing primarily nontechnical tasks. The 9 members of this group performed an average of 73 tasks. Only 7 percent of their relative job time was spent on technical duties. The remainder was spent on supervisory and training functions and managerial administrative-type tasks. Table 13 displays representative tasks for the group, while Table 14 presents tasks which

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 3C131 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=170)
I393	Perform radio checks	66
E159	Destroy classified materials	56
E184	Maintain master station logs	50
E176	Inventory classified materials	46
I372	Conduct phone patches manually	44
I395	Perform time hacks	44
I368	Authenticate message traffic using transmission authentication systems	42
I406	Receive, transmit, or relay emergency action messages (EAMs)	42
I369	Authenticate stations using challenge-and-reply systems	41
E160	Document destruction of classified materials	41
E219	Set station clocks	41
E170	Identify and report equipment or supply problems	38
I384	Identify incoming calls using call-sign lists	38
I370	Check stations into or out of the net	36
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	36
F253	Rotate antennas using radio dial codes	35
J418	Identify console malfunctions	34
I408	Receive, transmit, or relay foxtrot broadcasts	34
E182	Maintain classified materials	31
E187	Maintain position logs	31
H361	Perform operational checks of radio systems	31
I400	Receive and relay aircraft emergencies	30
G323	Configure consoles or terminals for phone patch operations	29
I379	Direct users to tune to your count	29
E169	Extract call-signs	29
I399	Prepare messages using HF voice format	29
H351	Change recording tapes	28
G328	Configure equipment for simplex operations	28
E229	Verify accuracy of call-sign lists	28
M506	Place calls	27
E179	Maintain accountability records for classified materials or documents	26
F252	Reconfigure antennas	26
M492	Accept and connect calls	25
G327	Configure equipment for duplex operations	25
I377	Determine operating frequencies	25

* Average Number of Tasks Performed - 46

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY 3C151 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=566)
E159	Destroy classified materials	76
E176	Inventory classified materials	70
E160	Document destruction of classified materials	66
E184	Maintain master station logs	61
I393	Perform radio checks	59
F242	Key secure cryptographic systems	52
E182	Maintain classified materials	52
I368	Authenticate message traffic using transmission authentication systems	50
D118	Conduct OJT	50
E169	Extract call-signs	50
I369	Authenticate stations using challenge-and-reply systems	49
E151	Change safe or lock combinations	49
E219	Set station clocks	49
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	48
H361	Perform operational checks of radio systems	46
I395	Perform time hacks	46
E152	Compile information for records, reports, or logs	45
E170	Identify and report equipment or supply problems	43
I384	Identify incoming calls using call-sign lists	42
I406	Receive, transmit, or relay emergency action messages (EAMs)	41
C108	Write EPRs	41
E190	Maintain security forms for safes, containers, or rooms	40
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	39
E179	Maintain accountability records for classified materials or documents	39
E220	Store classified materials, other than at deployed locations	39
E200	Post call-sign lists	38
B44	Counsel personnel on personal or military-related matters	37
D122	Counsel trainees on training progress	37
J418	Identify console malfunctions	37
H348	Change computer diskettes or tapes	36
I372	Conduct phone patches manually	36
F306	Verify keying of cryptological equipment	35
E187	Maintain position logs	33
I408	Receive, transmit, or relay foxtrot broadcasts	32
E180	Maintain administrative files	31

* Average Number of Tasks Performed - 77

TABLE 10

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSCs 3C131 AND 3C151 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C131 (N=170)	DAFSC 3C151 (N=566)	DIFF
C108	Write EPRs	2	41	-39
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	2	39	-37
B44	Counsel personnel on personal or military-related matters	5	37	-32
E151	Change safe or lock combinations	20	49	-29
D122	Counsel trainees on training progress	8	37	-29
B69	Supervise Radio Communications Systems Journeymen (AFSC 3C151)	2	30	-28
A20	Establish performance standards for subordinates	4	30	-26
F242	Key secure cryptographic systems	26	52	-26
D139	Evaluate progress of trainees	5	31	-26
E160	Document destruction of classified materials	41	66	-25
C94	Evaluate personnel for compliance with performance standards	2	27	-25
D118	Conduct OJT	26	50	-24
D143	Maintain training records, charts, graphs, or files	10	34	-24
E176	Inventory classified materials	46	70	-24

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY 3C171 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=172)
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	85
A6	Determine or establish work priorities	67
B44	Counsel personnel on personal or military-related matters	66
E159	Destroy classified materials	65
C108	Write EPRs	65
E174	Initiate electronic mail (E-mail)	64
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	60
A31	Plan or prepare briefings	60
A19	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	59
C110	Write recommendations for awards or decorations	58
A20	Establish performance standards for subordinates	56
A32	Plan or schedule work assignments or priorities	56
E160	Document destruction of classified materials	55
A22	Establish work methods or procedures	55
E180	Maintain administrative files	55
E182	Maintain classified materials	55
C94	Evaluate personnel for compliance with performance standards	53
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	52
A38	Review drafts of regulations, manuals, or other directives	52
B43	Conduct supervisory orientations of newly assigned personnel	51
A17	Establish administrative files	50
A23	Establish work schedules	49
E176	Inventory classified materials	49
A39	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	49
A40	Write job or position descriptions	49
C77	Conduct self-inspections	48
A5	Determine or establish publications requirements	48
E151	Change safe or lock combinations	47
E152	Compile information for records, reports, or logs	47
C95	Evaluate personnel for promotion, demotion, reclassification, or special awards	45
C104	Inspect personnel for compliance with military standards	45
A1	Assign personnel to duty positions, other than mobility positions	44
A14	Draft budget requirements	44
B64	Interpret policies, directives, or procedures for subordinates	44
C81	Evaluate communications operations	42
B69	Supervise Radio Communications Systems Journeyman (AFSC 3C151)	42

* Average Number of Tasks Performed - 87

TABLE 12

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSCs 3C151 AND 3C171 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C151 (N=566)	DAFSC 3C171 (N=172)	DIFF
E184	Maintain master station logs	61	26	35
E219	Set station clocks	49	15	34
I393	Perform radio checks	59	29	30
I395	Perform time hacks	46	17	29
I369	Authenticate stations using challenge-and-reply systems	49	23	26
I368	Authenticate message traffic using transmission authentication systems	50	24	26
I406	Receive, transmit, or relay emergency action messages (EAMs)	41	15	26
J418	Identify console malfunctions	37	14	23
I408	Receive, transmit, or relay foxtrot broadcasts	32	9	23
H361	Perform operational checks of radio systems	46	24	22
I384	Identify incoming calls using call-sign lists	42	20	22
**********	**********	**********	**********	**********
A14	Draft budget requirements	5	44	-49
A6	Determine or establish work priorities	29	67	-38
A32	Plan or schedule work assignments or priorities	18	56	-38
E174	Initiate electronic mail (E-mail)	26	64	-38
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	14	52	-38
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	48	85	-37
A39	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	12	49	-37
A19	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	24	59	-35
A38	Review drafts of regulations, manuals, or other directives	17	52	35
A40	Write job or position descriptions	14	49	35

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY 3C191 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=9)
E174	Initiate electronic mail (E-mail)	89
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	89
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	78
A5	Determine or establish publications requirements	78
A31	Plan or prepare briefings	78
A36	Prepare agenda for general meetings, such as staff meetings, briefings, conferences, and workshops	78
E151	Change safe or lock combinations	67
A6	Determine or establish work priorities	67
A38	Review drafts of regulations, manuals, or other directives	67
A39	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	67
C108	Write EPRs	67
C110	Write recommendations for awards or decorations	67
B44	Counsel personnel on personal or military-related matters	56
B48	Direct operations of ground radio stations	56
C81	Evaluate communications operations	56
C85	Evaluate inspection report findings	56
C95	Evaluate personnel for promotion, demotion, reclassification, or special awards	56
C102	Indorse enlisted performance reports (EPRs)	56
C104	Inspect personnel for compliance with military standards	56
E190	Maintain security forms for safes, containers, or rooms	56
A27	Plan communications support for exercises or special missions	56
A35	Plan self-inspection programs	56
B70	Supervise Radio Communications Systems Craftsman (AFSC 3C171)	56
C111	Write replies to inspection reports	56
B69	Supervise Radio Communications Systems Journeyman (AFSC 3C151)	55
A14	Draft budget requirements	44
C98	Evaluate new equipment	44
E180	Maintain administrative files	44
A8	Develop cost-reduction programs	33
C83	Evaluate equipment development or modification data	33
C92	Evaluate modified or prototype equipment	33
C99	Evaluate suggestions	33
B53	Implement cost-reduction programs	33
B63	Initiate requests for personnel requirements	33
C112	Write staff studies, surveys, or special reports, other than training reports	33
A37	Request radio nets for tactical or nontactical radios	22

* Average Number of Tasks Performed - 73

TABLE 14

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C171 AND DAFSC 3C191 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C171 (N=172)	DAFSC 3C191 (N=9)	DIFF
A23	Establish work schedules	49	11	38
A22	Establish work methods or procedures	55	22	33
D118	Conduct OJT	42	11	31
D143	Maintain training records, charts, graphs, or files	41	11	30
J417	Identify computer equipment malfunctions	29	0	29
D138	Evaluate personnel for training needs	37	11	26
D122	Counsel trainees on training progress	37	11	26
E170	Identify and report equipment or supply problems	37	11	26
I368	Authenticate message traffic using transmission authentication systems	24	0	24
D148	Select or schedule personnel for training	35	11	24
**********				
A3	Coordinate host-tenant or interservice agreements with appropriate agencies	27	67	-40
A36	Prepare agenda for general meetings, such as staff meetings, briefings, conferences, and workshops	39	78	-39
B48	Direct operations of ground radio stations	20	56	-36
A5	Determine or establish publications requirements	48	78	-30
C85	Evaluate inspection report findings	26	56	-30
E201	Prepare classified materials for mailing, transporting, or issue	28	56	-28
C102	Indorse enlisted performance reports (EPRs)	29	56	-27
C111	Write replies to inspection reports	29	56	-27
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	52	78	-26
E209	Research directives for procedures for marking or processing classified materials	19	44	-25

reflect differences between these more senior NCOs and 7-skill level personnel. Table 6 shows that the primary job for 9-skill level members is Supervisor (44 percent), while MAJCOM Staff NCO and Mobility/Tactical Radio Operator both hold 11 percent of the group.

Summary

Distinctions between skill-level groups are evident, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks across a number of different jobs. At the 7-skill level, the shift towards supervisory tasks becomes quite clear. Nine-skill level members are basically managers and supervisors performing higher-level and nontechnical tasks. The low number of tasks performed by 50 percent or more of the 3-, 5-, and 7-skill level groups suggest these personnel are performing diverse jobs.

ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTION*

Survey data were compared to the AFMAN 36-2108 *Specialty Description* for Radio Communications Systems, dated 31 October 1994.

In general, the specialty description encompasses most of the AFSC 3C1X1 career ladder jobs identified. It discusses not only the technical aspect of the jobs, but also includes higher-level duties, such as reviewing and evaluating radio operations. It does not, however, mention any of the tasks typical of the Telephone Switchboard Operator Job.

TRAINING ANALYSIS

Occupational survey data represent one of the many sources of information which are used to assist in the development training programs for career ladder personnel. OSR data useful to training personnel include job descriptions for the various jobs performed within a career ladder, distributions of personnel across career ladder jobs, percentages of personnel performing specific tasks, percentages of personnel maintaining specific equipment or systems, as well as the difficulty of tasks and TE ratings gathered from senior members of the career ladder.

First-Enlistment Personnel

In this study, there are 195 members in their first enlistment (1-48 months TAFMS), representing 21 percent of the total survey sample. The jobs performed by these personnel are highly technical in nature. First enlistment personnel, according to Table 15, spend the majority

TABLE 15

RELATIVE PERCENT TIME SPENT ON DUTIES BY FIRST-ENLISTMENT PERSONNEL
(N=195)

DUTIES		PERCENT TIME SPENT
A	ORGANIZING AND PLANNING	4
B	DIRECTING AND IMPLEMENTING	1
C	INSPECTING AND EVALUATING	1
D	TRAINING	2
E	PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	21
F	SETTING UP RADIO EQUIPMENT	15
G	ADJUSTING AND CONFIGURING RADIO EQUIPMENT	8
H	MAINTAINING RADIO EQUIPMENT	4
I	OPERATING RADIO EQUIPMENT	20
J	TROUBLESHOOTING RADIO EQUIPMENT	4
K	PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	6
L	PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	3
M	OPERATING TELEPHONE SWITCHBOARDS	9
N	PERFORMING MOBILITY AND SUPPORT ACTIVITIES	2

of their relative time performing administrative duties, operating radio equipment, and setting up radio equipment. Distribution of these personnel across the career ladder jobs is displayed in Figure 2. Table 16 displays some of the average 41 tasks performed by the group, and, by virtue of the relatively low percentages performing any given task (only 3 tasks are performed by 50 percent or more of the group), also reflects the somewhat diverse nature of the jobs being performed at this level.

One of the objectives of this survey was to gather data for the technical school pertaining to various types of radio communications equipment used or maintained. Accordingly, Table 17 presents percentages of first-enlistment airmen responding to questions concerning their activities involving these items. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items.

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training (TE) (see Table 18 for the top-rated tasks), along with a measure of the difficulty of the JI tasks (TD) (see selected high rated tasks presented in Table 19). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

The results of the TE and TD analysis reveal certain trends. Seven of the eight tasks rated highest in Training Emphasis are categorized under Duty I, Operating and Maintaining Radio Equipment. Several tasks in Duty E, Performing General Administrative and Supply Activities, were also rated fairly high. Of those tasks rated highest in task difficulty, all but one task are categorized under Duties A through D. These duties are nontechnical in nature and tend to focus around managerial and supervisory-type tasks. The percent members performing these tasks is highest among those at the 7-skill level. The majority of these tasks were also rated low in training emphasis.

To assist technical school personnel, AFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators

AFSC 3C1X1
FIRST ENLISTMENT JOBS

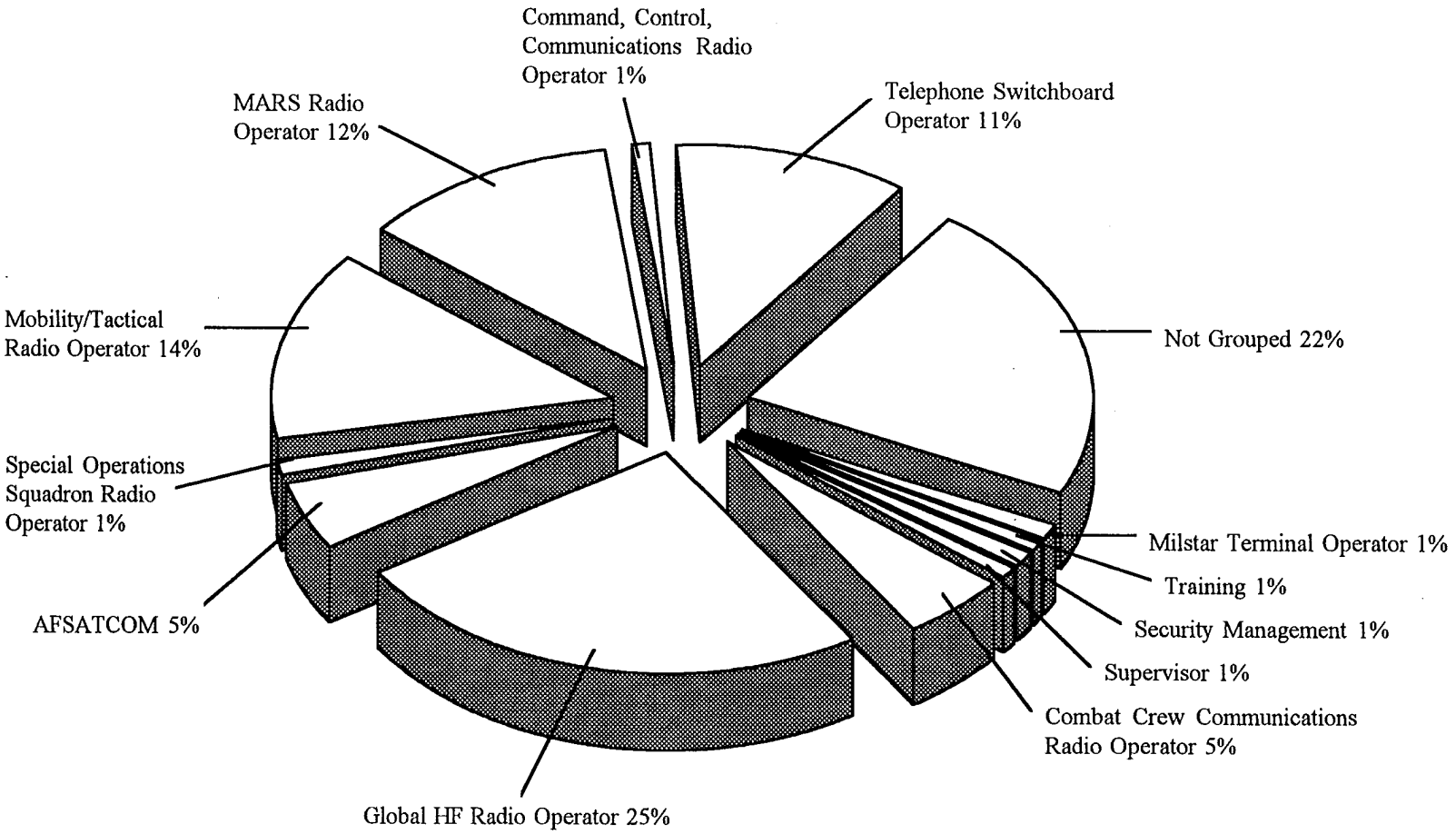

FIGURE 2

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY 3C1X1
FIRST-ENLISTMENT PERSONNEL
(N=195)

TASKS		PERCENT MEMBERS PERFORMING
I393	Perform radio checks	65
E159	Destroy classified materials	59
E184	Maintain master station logs	51
E176	Inventory classified materials	49
I372	Conduct phone patches manually	44
E160	Document destruction of classified materials	43
I395	Perform time hacks	41
I369	Authenticate stations using challenge-and-reply systems	40
I368	Authenticate message traffic using transmission authentication systems	39
I406	Receive, transmit, or relay emergency action messages (EAMs)	39
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	38
E219	Set station clocks	38
E170	Identify and report equipment or supply problems	37
I370	Check stations into or out of the net	35
E182	Maintain classified materials	35
I384	Identify incoming calls using call-sign lists	34
H361	Perform operational checks of radio systems	32
I408	Receive, transmit, or relay foxtrot broadcasts	32
F253	Rotate antennas using radio dial codes	31
J418	Identify console malfunctions	30
F242	Key secure cryptographic systems	30
E187	Maintain position logs	30
I399	Prepare messages using HF voice format	30
E169	Extract call-signs	29
I400	Receive and relay aircraft emergencies	28
G323	Configure consoles or terminals for phone patch operations	27
E179	Maintain accountability records for classified materials or documents	27
F303	Tune transceivers to obtain readable signals	27
H351	Change recording tapes	26
I379	Direct users to tune to your count	26
M506	Place calls	26
F302	Tune receivers to obtain readable signals	26
E229	Verify accuracy of call-sign lists	26
G328	Configure equipment for simplex operations	25

Average Number of Tasks Performed - 41

TABLE 17

EQUIPMENT USED OR OPERATED
BY FIRST-ENLISTMENT PERSONNEL

	PERCENT MEMBERS RESPONDING (N=195)
FIXED COMMUNICATION SYSTEMS	
GLOBAL HIGH FREQUENCY SYSTEM	31
COMBAT CREW COMMUNICATIONS	20
MYSTIC STAR	14
MARS	11
SWITCHBOARD	10
SATCOM	8
MILSTAR	4
GLOBAL WEATHER INTERCEPT PROGRAM	2
REGENCY NET	1
SITFAA	1
MISSION RADIO SYSTEM (MRS)	0
DEPLOYABLE COMMUNICATION SYSTEMS	
COMBAT COMMUNICATIONS	9
SWITCHBOARD	6
CONTINGENCY COMM ELEMENT	5
SATCOM	5
MARS VAN	3
MILSTAR	3
WING INITIAL COMM PACKAGE (WICP)	3
MOBILITY INITIAL COMM KIT (MICK)	1
SPECIAL OPERATIONS	0

TABLE 17 (CONTINUED)

EQUIPMENT USED OR OPERATED
BY FIRST-ENLISTMENT PERSONNEL

	PERCENT MEMBERS RESPONDING (N=195)
FREQUENCY BANDS	
HIGH FREQUENCY	68
ULTRAHIGH FREQUENCY (UHF)	32
VERY HIGH FREQUENCY (VHF)	18
SUPER HIGH FREQUENCY (SHF)	4
EXTREMELY HIGH FREQUENCY (EHF)	3
LOW FREQUENCY (LF)	2
EXTREMELY LOW FREQUENCY (ELF)	1
SUPER LOW FREQUENCY (SLF)	1
ULTRALOW FREQUENCY (ULF)	1
VERY LOW FREQUENCY (VLF)	1
MEDIUM FREQUENCY (MF)	0
COMMUNICATIONS MODES	
SINGLE SIDEBAND (SSB)	35
INDEPENDENT SIDEBAND (ISB)	30
DATA TRANSMISSION	26
FREQUENCY MODULATION (FM)	15
CONTINUOUS WAVE (CW)	13
AMPLITUDE MODULATION (AM)	12
MOBILE COMMUNICATIONS SYSTEMS	
TRANSCEIVER, PORTABLE	12
SATCOM	9
RADIO, HANDHELD	7
TRANSCEIVER, VEHICULAR	7
RADIO, BACKPACK	3
QUICK REACTION PACKAGE (QRP)	2

TABLE 17 (CONTINUED)

EQUIPMENT USED OR OPERATED
BY FIRST-ENLISTMENT PERSONNEL

COMMUNICATIONS EQUIPMENT	PERCENT MEMBERS RESPONDING (N=195)
CRYPTOGRAPHIC EQUIPMENT	49
COMPUTER EQUIPMENT	48
PRINTER	45
TAPE RECORDER	33
PACER BOUNCE	32
RADIOTELETYPE EQUIPMENT	31
SWITCHBOARD EQUIPMENT	17
TRANSMISSION SECURITY (TRANSEC) EQUIPMENT	14
FACSIMILE EQUIPMENT	11
MOBILE ANTENNA SYSTEM	10
IONOSPHERIC SOUNDING EQUIPMENT	1

TABLE 18

TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	PERCENT MEMBERS PERFORMING 1ST ENL (N=195)	TASK DIFF**
I369	Authenticate stations using challenge-and-reply systems	6.32	33	40	3.97
I368	Authenticate message traffic using transmission authentication systems	6.29	31	39	4.01
I406	Receive, transmit, or relay emergency action messages (EAMs)	6.20	37	39	4.87
I400	Receive and relay aircraft emergencies	6.20	26	28	6.36
I372	Conduct phone patches manually	6.07	44	44	3.93
E176	Inventory classified materials	6.05	41	49	4.08
I408	Receive, transmit, or relay foxtrot broadcasts	5.90	25	32	4.99
I370	Check stations into or out of the net	5.71	31	35	3.55
E159	Destroy classified materials	5.68	47	59	4.33
E187	Maintain position logs	5.66	29	30	3.51
E160	Document destruction of classified materials	5.59	31	43	4.24
I393	Perform radio checks	5.44	65	65	2.68
I381	Encode or decode messages manually	5.37	14	18	4.46
E169	Extract call-signs	5.34	21	29	3.06
F303	Tune transceivers to obtain readable signals	5.24	29	27	4.13
H361	Perform operational checks of radio systems	5.22	28	32	3.73
E182	Maintain classified materials	5.22	22	35	5.03
F244	Orient high frequency (HF) tactical antennas	5.20	17	22	5.22
I399	Prepare messages using HF voice format	5.12	28	30	4.14
I373	Conduct phone patches using automatic techniques	5.12	28	22	3.90

* Mean TE Rating is 2.39, and Standard Deviation is 1.44 (High TE = 6.32)

** Average TD Rating is 5.00

TABLE 19

TASKS RATED HIGH IN TASK DIFFICULTY (TD)

TASKS		TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	1ST ENL (N=195)	DAFSC 3C151 (N=566)	DAFSC 3C171 (N=172)	TNG EMP**
D124	Develop career development courses (CDCs)	7.50	4	4	1	2	.32
D128	Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	7.49	1	3	2	6	.15
A24	Initiate host-tenant or interservice agreements	7.34	2	4	5	17	.10
A14	Draft budget requirements	7.30	2	4	5	44	.61
I413	Transcribe international Morse codes (IMCs)	7.22	2	2	1	1	1.46
A27	Plan communications support for exercises or special missions	7.21	8	8	18	37	.98
C112	Write staff studies, surveys, or special reports, other than training reports	7.17	2	3	4	26	.54
D145	Prepare command standard training packages	6.98	1	2	2	3	.34
D132	Develop resident course curricula	6.94	1	2	2	3	.29
D130	Develop OJT programs	6.94	2	3	11	19	1.34
C92	Evaluate modified or prototype equipment	6.91	2	2	4	14	.83
D146	Prepare job qualification standards (JQSs)	6.88	1	3	10	13	1.07
B51	Draft recommendations for policy changes in logistics requirements, such as personnel, equipment, tools, or supplies	6.87	1	2	3	22	.80
D131	Develop or prepare lesson plans	6.85	2	3	11	17	1.32
B52	Draft supplements or changes to communications publications	6.85	1	1	2	13	.63
C83	Evaluate equipment development or modification data	6.85	3	2	4	10	.29
C93	Evaluate new equipment	6.84	4	3	11	28	1.39
D129	Develop in-service training plans	6.81	1	3	4	5	.46
C110	Write recommendations for awards or decorations	6.69	2	2	24	58	1.59
D141	Evaluate training requirements for instructors	6.68	1	3	4	11	.20

* Average TD Rating is 5.00

** Mean TE Rating is 2.39, and Standard Deviation is 1.44 (High TE = 6.32)

correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 1, AETCR 52-22, and allow course personnel to quickly focus their attention on those tasks which are most likely to qualify for initial resident course consideration.

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

Specialty Training Standard (STS)

A comprehensive review of STS 3C1X1, dated April 1994, was made by comparing survey data to STS elements. Technical school personnel from Keesler AFB MS matched JI tasks to appropriate STS sections and subsections. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their review of the training documents. A complete computer listing for equipment items and forms has also been forwarded to the school.

Typically, STS sections and subsections matched to tasks which have sufficiently high TE and TD ratings, and are performed by at least 20 percent of personnel in appropriate experience or skill-level groups (such as first-enlistment (1-48 months TAFMS) and 5- and 7-skill level groups), are considered to be supported and should be considered for inclusion in the STS. Likewise, paragraphs having tasks with less than 20 percent performing across all the criterion groups should be considered for deletion from the STS.

General STS paragraphs, such as Career Progression, Supervision, and Training (paragraphs 1-3) were not reviewed. Paragraphs 4 through 11 were thoroughly reviewed against the OSR data. Most were, in general, supported, in that tasks matched to the STS paragraphs generally had at least 20 percent of one criterion group performing the matched tasks. However, SMEs should carefully review the STS for possible fine-tuning of content and proficiency codes, in light of the fact that this is a very diverse career ladder and personnel work on many different systems and pieces of equipment (both fixed and mobile). Equipment data presented earlier should be helpful in any review performed.

Table 20 lists several examples of STS paragraphs which need to be reviewed by SMEs. For example, paragraphs 7d(10), 7g(2)(b), 7g(3), 8b(2)(b), 8b(3)(d), and 11a(1) need to be reviewed for deletion in future revisions due to small percentages (less than 20 percent) performing related tasks. Several of the proficiency codes should also be carefully reviewed. For example, in paragraph 11a(1), only 2 percent of first-enlistment personnel are performing related tasks, yet the course is taught at the "2b" level. Similar situations arise with paragraphs 7d(10) and 7g(3).

TABLE 20

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY OSR DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	1ST ENL (N=195)	5-SKILL LEVEL (N=566)	7-SKILL LEVEL (N=172)	TASK DIFF
7d(10)	LOGKEEPING	2b						
E194	Make entries on frequency utilization letters		1.85	5	4	3	3	3.85
8b(2)(b)	DEPLOYABLE	B						
F294	Set up VHF whip antennas		3.20	1	4	7	6	4.43
F297	Set up VHF/UHF portable satellite dish antennas		2.63	0	1	6	4	5.43
8b(3)(d)	SATELLITE ANTENNA	b						
F297	Set up VHF/UHF portable satellite dish antennas		2.63	0	1	6	4	5.43
11a(1)	SELECT EQUIPMENT	2b						
G341	Configure transceivers for switchboard dial code operations		2.85	3	2	2	3	5.30
7g(2)(b)	PERFORM COUNTERMEASURES	a						
I386	Implement spectrum interference countermeasures		4.61	3	5	8	12	5.54
7g(3)	CIRVIS REPORTS	2b						
I405	Receive, transmit, or relay communications instructions for reporting vital intelligence sightings (CIRVISs) reports		4.12	9	9	11	4	5.67

Average TE = 2.39, Standard Deviation = 1.44, High TE = 3.83
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

Tasks not matched to any element of the STS are listed at the end of the STS computer listing. Table 21 lists examples of tasks which were performed by 20 percent or more of criterion groups, but not matched to any STS item. Training personnel and SMEs should review these and other unreferenced tasks to determine their appropriateness in being included in the STS.

Plan of Instruction (POI)

POI E3ABR3C131, Radio Communications Systems Apprentice, dated 21 August 1995, was reviewed against the extensive equipment lists presented above, the tasks performed by first-job and first-enlistment personnel, TE and TD ratings, and the job structure described in the **SPECIALTY JOBS** section of the OSR. POI criterion objectives were compared against the standard set forth in Attachment 1, AETCR 52-22, dated February 1989 (30 percent or more of the criterion first-enlistment group performing tasks or using equipment trained, along with sufficiently high TE and TD ratings). Per this guidance, behavioral objectives in the course which do not meet these criteria should be considered for elimination from the formal course if not justified on some other acceptable basis.

Table 22 lists selected examples of POI elements which require review by SMEs because they are not performed by 30 percent of DAFSC 3C1X1 first-job or first-enlistment personnel. Tasks related to paragraphs II 6c and III 2g, for example, are performed by less than 10 percent of first-enlistment personnel. Such paragraphs should be recommended for revision or deletion.

ANALYSIS OF MAJOR COMMANDS (MAJCOM)

Tasks and background data of the nine MAJCOMs or field operating agencies with the largest AFSC 3C1X1 populations were compared to determine whether job content varied as a function of command assignment (see Table 23).

Generally, all MAJCOMs showed high relative time spent in general administrative and supply activities, except for CENTCOM, which reflected high percentages in setting up radio equipment and performing mobility and support activities. As would be expected, AETC showed a high percentage of time spent performing training duties. AFSPACECOM rated high in the performance of SATCOM activities, and both AFSPACECOM and AMC had the highest numbers under the operation of telephone switchboards. Other notable differences include AFSOC, which rated high in setting up radio equipment, and both PACAF and AFMC, which rated high in operating radio equipment.

TABLE 21

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE 3C1X1 PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	1ST ENL (N=195)	5-SKILL LEVEL (N=566)	7-SKILL LEVEL (N=172)	TNG EMPH	TASK DIFF
I372	Conduct phone patches manually	44	44	36	18	6.07	3.93
I401	Receive and relay departure reports	22	21	23	13	4.88	4.90
G323	Configure consoles or terminals for phone patch operations	25	27	30	12	4.78	4.80
G311	Change receiver frequencies by remote control	21	22	28	12	4.34	3.96
G316	Change transmitter frequencies by remote control	16	21	24	11	4.29	3.77
G312	Change receiver frequencies manually	26	25	23	10	4.10	3.84
G315	Change transceiver frequencies manually	25	25	24	18	4.05	3.74

Average TE = 2.39, Standard Deviation = 1.44, High TE = 3.83
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 22

EXAMPLES OF POI ELEMENTS NOT SUPPORTED BY OSR DATA
(LESS THAN 30 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	PERCENT MEMBERS PERFORMING 1ST ENL (N=195)	TASK DIFF
II 3d	Using a propagation chart, correctly determine the frequency of optimum transmission six out of ten times					
F259	Select frequency-of-optimum transmissions (FOTs)	4.20	11	9	10	4.76
E213	Review propagation aids or charts	3.10	7	0	2	4.51
II 4b	Identify procedures for constructions deployable antennas					
F238	Cut length of antennas	4.07	11	4	6	5.43
F244	Orient high frequency (HF) tactical antennas	5.20	11	17	22	5.22
F246	Orient ultrahigh frequency (UHF) tactical antennas	3.93	11	5	7	5.05
F262	Set up antenna masts	4.44	11	14	20	5.26
F268	Set up HF dipole antennas	4.39	11	13	16	5.64
F298	Site radio antennas	4.32	11	8	10	5.62
F299	Site radio equipment	4.32	11	4	8	5.19
F247	Orient very high frequency (VHF) tactical antennas	3.80	7	2	4	4.97
F277	Set up HF sloping V antennas	3.80	7	10	12	5.60
F297	Set up VHF/UHF portable satellite dish antennas	2.63	7	0	1	5.43
F245	Orient superhigh frequency (SHF) tactical antennas	3.56	3	1	3	5.20
F263	Set up antenna patch panels	2.56	3	1	2	4.79

Average TE = 2.39, Standard Deviation = 1.44, High TE = 3.83
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 22 (CONTINUED)

EXAMPLES OF POI ELEMENTS NOT SUPPORTED BY OSR DATA
(LESS THAN 30 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=106)	PERCENT MEMBERS PERFORMING 1ST ENL (N=195)	TASK DIFF
II 6c	Using an RT-1446 Mock-up, perform minor maintenance IAW the course checklist					
H365	Replace radio system components, such as bulbs or fuses	2.73	7	3	4	3.81
H364	Replace printed circuit cards (PCCs) in communications equipment	2.10	1	1	2	5.04
III 2f	Identify characteristics of spectrum interference					
I378	Determine types of spectrum interferences	4.05	11	2	6	5.37
I386	Implement spectrum interference countermeasures	4.61	11	3	5	5.54
I382	Evaluate effectiveness of spectrum interferences	3.27	7	1	3	4.84
III 2g	Identify basic facts of High Frequency Direction Finding (HF/DF)					
I375	Coordinate aircraft positions with direction-finding (DF) facilities	4.12	11	3	7	5.48
III 4a	Identify mission characteristics of fixed HF facilities					
F257	Select back-up receivers	4.22	11	12	12	3.79
F258	Select back-up transmitters	4.22	11	12	12	3.79
G326	Configure electronic switching subsystems (ESSs) for operation	3.71	7	6	6	5.45

Average TE = 2.39, Standard Deviation = 1.44, High TE = 3.83
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 23

PERCENTAGE OF TIME SPENT ON DUTIES BY MAJCOM GROUPS

	DUTIES	USAFE (N=101)	AETC (N=13)	PACAF (N=106)	AFSOC (N=31)	ACC (N=270)	AMC (N=221)	AFMC (N=59)	SPCCOM (N=86)	CNTCM (N=9)
A	ORGANIZING AND PLANNING	5	17	8	10	10	10	7	12	5
B	DIRECTING AND IMPLEMENTING	4	6	4	5	4	4	4	4	2
C	INSPECTING AND EVALUATING	5	11	5	5	6	6	5	7	1
D	TRAINING	6	29	7	4	6	7	4	9	4
E	PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES	24	22	24	21	23	22	20	24	6
F	SETTING UP RADIO EQUIPMENT	15	4	8	22	12	10	13	10	32
G	ADJUSTING AND CONFIGURING RADIO EQUIPMENT	8	1	7	7	4	7	10	2	6
H	MAINTAINING RADIO EQUIPMENT	5	1	5	4	3	3	4	3	7
I	OPERATING RADIO EQUIPMENT	17	2	21	9	10	11	24	4	7
J	TROUBLESHOOTING RADIO EQUIPMENT	6	*	5	3	2	4	5	3	7
K	PERFORMING COMBAT CREW COMMUNICATIONS ACTIVITIES	3	4	2	1	9	5	3	3	*
L	PERFORMING SATELLITE COMMUNICATIONS (SATCOM) ACTIVITIES	1	1	2	1	2	4	*	10	2
M	OPERATING TELEPHONE SWITCHBOARDS	1	1	1	1	3	8	1	7	1
N	PERFORMING MOBILITY AND SUPPORT ACTIVITIES	1	1	1	9	6	1	1	2	19

* Denotes less than .5 percent

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 24 presents job satisfaction data for AFSC 3C1X1 TAFMS groups, together with TAFMS data for a comparative sample of Support career ladders surveyed in 1994. Less than 60 percent of all 3 TAFMS groups find their jobs interesting and are satisfied with the sense of accomplishment gained from the job. DAFSC 3C1X1 personnel rate their job satisfaction consistently lower than the 1994 comparative sample.

An indication of how job satisfaction perceptions have changed over time is provided in Table 25, where again TAFMS data for 1995 survey respondents are presented, along with data from respondents to the last OSR involving this career ladder in 1988. In every case, the number of personnel satisfied with aspects of their job went down, except for 1--those with 97 or more months time in service reported a higher perceived utilization of training than in 1988. The most notable drops in job satisfaction were the sense of accomplishment gained from work reported by first-enlistment personnel, as well as job interest as expressed by second-enlistment personnel.

In Table 26, review of the job satisfaction data for personnel in the specialty jobs identified in this survey reveals that the job people in this career ladder are performing has an impact on how they perceive their level of satisfaction. The specialty jobs rated highest in job satisfaction are Training, Special Operations Squadron Radio Operator, and MAJCOM Staff NCO. Those that reported low job satisfaction ratings were Regency Net Radio Operator, Telephone Switchboard Operator, and Command, Control, and Communications Radio Operator.

IMPLICATIONS

From the standpoint of the data gathered during the occupational survey, the AFSC 3C1X1 career ladder structure reflects a wide diversity and variety of jobs performed by career ladder members. Members primarily serve as radio operators across a broad spectrum of jobs, ranging from Milstar, Combat Crew Communications, Regency Net, Global HF Systems, and AFSATCOM activities to Special Operations Squadron, MARS, and Command, Control, Communications Radio Operators. Others work as Mobility and Tactical Radio Operators. A small group were also found to perform as Telephone Switchboard Operators rather than radio operators. Other members worked as Supervisors or in Training and Security Management jobs. Despite the diversity of work found in the career ladder, job progression shows a distinct pattern as one moves from the 3-skill level to the 9-skill level. The AFMAN 36-2108 *Specialty*

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	1995 3C1X1 (N=195)	COMP SAMPLE* (N=4,321)	1995 3C1X1 (N=256)	COMP SAMPLE* (N=2,878)	1995 3C1X1 (N=466)	COMP SAMPLE* (N=5,557)
EXPRESSED JOB INTEREST:						
INTERESTING	43	69	40	67	55	74
SO-SO	21	18	23	20	23	15
DULL	36	13	36	13	22	10
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY GOOD TO PERFECT	50	75	48	76	63	81
NOT AT ALL/VERY LITTLE	51	25	52	24	36	19
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECT	69	82	59	78	64	78
NOT AT ALL/VERY LITTLE	31	17	40	22	36	22
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	48	67	45	69	58	71
NEUTRAL	16	15	21	12	13	10
DISSATISFIED	36	17	34	19	28	19
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	59	59	72	73	73	71
NO, OR PROBABLY NO	41	40	28	27	9	9
WILL RETIRE	0	0	0	0	18	19

* Comparative sample of support career ladders surveyed in 1994 (includes AFSCs 3A0X1, Information Management, 3C2X1, Communications-Computer Systems Control, 3E0X2, Electrical Power Production, 3E7X1, Fire Protection, 3E8X1, Explosive Ordinance Disposal, 3M0X1, Services, and 3R0X1, Printing Management)

TABLE 25

COMPARISON OF CURRENT SURVEY AND 1988 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

JOB SATISFACTION INFORMATION:	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1995 (N=195)	1988 (N=550)	1995 (N=256)	1988 (N=246)	1995 (N=466)	1988 (N=402)
EXPRESSED JOB INTEREST:						
INTERESTING	43	50	40	48	55	59
SO-SO	21	24	23	22	23	22
DULL	36	26	36	29	22	19
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY GOOD TO PERFECT	50	58	48	55	63	67
NOT AT ALL/VERY LITTLE	51	42	52	46	36	33
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY GOOD TO PERFECT	69	74	59	61	64	62
NOT AT ALL/VERY LITTLE	31	25	40	39	36	37
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	48	56	45	48	58	59
NEUTRAL	16	17	21	13	13	12
DISSATISFIED	36	27	34	38	28	29
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	59	64	72	76	73	77
NO, OR PROBABLY NO	41	35	28	24	9	8
WILL RETIRE	0	1	0	0	18	15

TABLE 26

COMPARISONS OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	MILSTAR TERMINAL OPERATOR (GP039, N=16)	TRAINING (ST090, N=15)	SECURITY MANAGEMENT (ST147, N=15)	MAJCOM STAFF NCO (ST128, N=14)	SUPERVISOR (ST054, N=117)
EXPRESSED JOB INTEREST:					
INTERESTING	63	93	53	86	66
SO-SO	25	7	27	7	20
DULL	13	0	20	7	15
PERCEIVED UTILIZATION OF TALENTS:					
FAIRLY GOOD TO PERFECT	56	93	60	86	77
LITTLE OR NOT AT ALL	44	7	40	14	22
PERCEIVED UTILIZATION OF TRAINING:					
FAIRLY GOOD TO PERFECT	44	73	53	64	58
LITTLE OR NOT AT ALL	56	27	47	36	42
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:					
SATISFIED	38	73	47	79	68
NEUTRAL	19	7	7	0	13
DISSATISFIED	44	20	47	21	19
REENLISTMENT INTENTIONS:					
YES, OR PROBABLY YES	75	67	73	64	67
NO, OR PROBABLY NO	13	20	0	7	9
WILL RETIRE	13	13	27	29	23

TABLE 26 (CONTINUED)

COMPARISONS OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	COMBAT CREW COMM (ST135, N=62)	REGENCY NET RADIO OPERATOR (ST124, N=7)	GLOBAL HF RADIO OPERATOR (ST073, N=236)	AFSATCOM (ST095, N=66)	SPECIAL OPS RADIO OPERATOR (ST100, N=9)
EXPRESSED JOB INTEREST:					
INTERESTING	53	14	37	42	89
SO-SO	23	0	23	21	11
DULL	24	86	40	36	0
PERCEIVED UTILIZATION OF TALENTS:					
FAIRLY GOOD TO PERFECT	57	29	47	43	89
LITTLE OR NOT AT ALL	42	71	53	58	11
PERCEIVED UTILIZATION OF TRAINING:					
FAIRLY GOOD TO PERFECT	45	57	81	63	89
LITTLE OR NOT AT ALL	55	43	19	38	11
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:					
SATISFIED	60	29	42	44	100
NEUTRAL	19	14	18	18	0
DISSATISFIED	19	57	40	38	0
REENLISTMENT INTENTIONS:					
YES, OR PROBABLY YES	69	100	71	70	100
NO, OR PROBABLY NO	24	0	27	27	0
WILL RETIRE	6	0	3	3	0

TABLE 26 (CONTINUED)

COMPARISONS OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	MOBILITY TACTICAL RADIO OPER (ST080, N=140)	MARS OPERATOR (ST070, N=31)	COMD CONTRL COMMUNIC RADIO OPER (ST145, N=5)	TELEPHONE SWITCHBOARD OPERATOR (ST052, N=49)
EXPRESSED JOB INTEREST:				
INTERESTING	48	32	20	18
SO-SO	31	35	40	29
DULL	20	32	40	53
PERCEIVED UTILIZATION OF TALENTS:				
FAIRLY GOOD TO PERFECT	66	39	0	24
LITTLE OR NOT AT ALL	34	61	100	73
PERCEIVED UTILIZATION OF TRAINING:				
FAIRLY GOOD TO PERFECT	74	68	40	20
LITTLE OR NOT AT ALL	26	32	60	78
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:				
SATISFIED	57	45	20	29
NEUTRAL	16	13	0	22
DISSATISFIED	26	42	80	49
REENLISTMENT INTENTIONS:				
YES, OR PROBABLY YES	74	68	20	63
NO, OR PROBABLY NO	17	32	80	33
WILL RETIRE	8	0	0	4

Description broadly describes all jobs performed except that of the Telephone Switchboard Operators. A thorough review of the STS and POI found that both documents are generally supported, but several areas and proficiency codes need to be reviewed. The major area of concern noted in analysis of the survey data was in job satisfaction, where extremely low percentages of AFSC 3C1X1 personnel across all TAFMS groups found their job interesting.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

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TABLE A1

MILSTAR TERMINAL OPERATOR
(GP039, N=16)

TASKS		PERCENT MEMBERS PERFORMING
E176	Inventory classified materials	100
L482	Log on or log off Milstar networks or satellites	94
L488	Set up or tear down Milstar networks	94
L489	Set up or tear down Milstar point-to-point calls	94
E159	Destroy classified materials	88
E160	Document destruction of classified materials	88
L463	Configure Milstar terminals as monitor net controller	88
L481	Load time standard modules	81
L464	Configure Milstar terminals as net control elements (NCEs)	75
L470	Enter date into time distribution subsystems (TDSs)	75
J430	Identify terminal malfunctions	69
L462	Configure consoles or terminals for secure or nonsecure voice or data communications	69
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	63
E174	Initiate electronic mail (E-mail)	63
F242	Key secure cryptographic systems	63
H349	Change paper in high speed printers	63
L491	Update time standard modules	63
G332	Configure terminals for alternate or net control station (NCS) operations	56
E187	Maintain position logs	50
G333	Configure terminals for cross-banding	44
L487	Reset terminal software	44
E182	Maintain classified materials	38
D144	Plan or schedule training, such as OJT, proficiency training, or orientation training	31

TABLE A2

TRAINING
(ST090, N=15)

TASKS		PERCENT MEMBERS PERFORMING
D121	Construct or develop training materials or aids	100
D140	Evaluate training methods or techniques	93
D135	Evaluate effectiveness of training programs	80
D115	Brief organizational personnel on training programs or matters	73
D120	Conduct training conferences, briefings, or debriefings	73
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	67
D134	Establish or maintain study reference files	67
D143	Maintain training records, charts, graphs, or files	67
D131	Develop or prepare lesson plans	60
D138	Evaluate personnel for training needs	60
D142	Implement training programs	60
D148	Select or schedule personnel for training	60
D113	Administer or score tests	53
D117	Conduct customer education training	53
D122	Counsel trainees on training progress	53
D128	Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	53
D150	Write training reports	53
E159	Destroy classified materials	53
E174	Initiate electronic mail (E-mail)	53
A5	Determine or establish publications requirements	47
A31	Plan or prepare briefings	47
D119	Conduct resident course classroom training	47
D137	Evaluate or inspect training materials or aids for operation or suitability	47
D139	Evaluate progress of trainees	47
D149	Write test questions	47
E176	Inventory classified materials	47
E180	Maintain administrative files	47

TABLE A3

SECURITY MANAGEMENT
(ST147, N=15)

TASKS		PERCENT MEMBERS PERFORMING
E159	Destroy classified materials	100
E160	Document destruction of classified materials	100
E182	Maintain classified materials	100
E190	Maintain security forms for safes, containers, or rooms	100
E179	Maintain accountability records for classified materials or documents	93
A016	Establish access lists	87
E151	Change safe or lock combinations	87
E176	Inventory classified materials	87
E223	Update access lists	87
E228	Verify accuracy of access lists	87
A19	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	80
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	80
E222	Transport classified materials	80
E152	Compile information for records, reports, or logs	73
E168	Establish accountability records for classified materials or documents	73
E220	Store classified materials, other than at deployed locations	73
A17	Establish administrative files	67
B56	Implement safety or security programs	67
C77	Conduct self-inspections	67
A13	Develop self-inspection program checklists	60
A18	Establish communications security (COMSEC) subaccounts	60
A34	Plan safety or security programs	60
E171	Identify and report suspected security compromises	60
B57	Implement self-inspection programs	53
C97	Evaluate safety or security programs	53
E180	Maintain administrative files	53

TABLE A4

MAJCOM STAFF NCO
(ST128, N=14)

TASKS		PERCENT MEMBERS PERFORMING
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	100
E162	Draft or write classified reports, messages, or documents	100
A38	Review drafts of regulations, manuals, or other directives	93
E159	Destroy classified materials	93
E182	Maintain classified materials	93
A27	Plan communications support for exercises or special missions	86
A31	Plan or prepare briefings	86
E151	Change safe or lock combinations	86
E166	Draft requests for TDY orders, passports, or visas	79
E174	Initiate electronic mail (E-mail)	79
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	71
C81	Evaluate communications operations	71
C82	Evaluate deficiency, service, or status reports	71
C93	Evaluate new equipment	71
E160	Document destruction of classified materials	71
A10	Develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alert plans	64
A36	Prepare agenda for general meetings, such as staff meetings, briefings, conferences, and workshops	64
C112	Write staff studies, surveys, or special reports, other than training reports	64
E161	Draft or write after-action reports	64
E167	Draft trip itineraries	64
E220	Store classified materials, other than at deployed locations	64
E152	Compile information for records, reports, or logs	57
E190	Maintain security forms for safes, containers, or rooms	57

TABLE A5

SUPERVISOR
(ST054, N=117)

TASKS		PERCENT MEMBERS PERFORMING
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	89
B44	Counsel personnel on personal or military-related matters	87
A6	Determine or establish work priorities	85
C108	Write EPRs	85
A20	Establish performance standards for subordinates	84
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	84
C94	Evaluate personnel for compliance with performance standards	79
C110	Write recommendations for awards or decorations	79
A31	Plan or prepare briefings	75
A32	Plan or schedule work assignments or priorities	75
C95	Evaluate personnel for promotion, demotion, reclassification, or special awards	74
A22	Establish work methods or procedures	73
A19	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	71
B43	Conduct supervisory orientations of newly assigned personnel	71
A4	Determine or establish logistics requirements, such as personnel, equipment, space, tools, or supplies	68
A40	Write job or position descriptions	68
E180	Maintain administrative files	68
B64	Interpret policies, directives, or procedures for subordinates	66
E151	Change safe or lock combinations	66
E182	Maintain classified materials	66
A38	Review drafts of regulations, manuals, or other directives	64
C77	Conduct self-inspections	64
A17	Establish administrative files	63
C104	Inspect personnel for compliance with military standards	63
E159	Destroy classified materials	63
A23	Establish work schedules	62

TABLE A6

COMBAT CREW COMMUNICATIONS RADIO OPERATOR
(ST135, N=62)

TASKS		PERCENT MEMBERS PERFORMING
K446	Issue communication kits	100
K437	Breakdown communication kits	98
K445	Inventory COMSEC materials	98
K447	Issue FLIPs	98
K434	Assemble flight information publication (FLIP) bags	97
K435	Assemble peacetime communication kits	95
K459	Update FLIPs	94
K436	Assemble special mission kits	92
K450	Retrieve communication kits	90
K451	Retrieve FLIPs	90
E159	Destroy classified materials	89
K444	File communications kit materials	87
K455	Review flying schedules	87
K438	Brief aircrews on peacetime communications procedures	82
E176	Inventory classified materials	76
K449	Pack combat crew communications (CCC) materials	74
E160	Document destruction of classified materials	73
K448	Load transfer service modules	73
K456	Sign out or issue classified information for special missions	73
E182	Maintain classified materials	71
K441	Conduct peacetime communications training	67
K458	Unpack CCC materials after exercises	66
K433	Assemble emergency war order (EWO) communications kits	63
K457	Test aircrews on communications procedures	60
E220	Store classified materials, other than at deployed locations	58
K460	Update transfer service modules	58
E179	Maintain accountability records for classified materials or documents	53
E222	Transport classified materials	52
E190	Maintain security forms for safes, containers, or rooms	48

TABLE A7

REGENCY NET RADIO OPERATOR
(ST124, N=7)

TASKS		PERCENT MEMBERS PERFORMING
E159	Destroy classified materials	100
E160	Document destruction of classified materials	100
E176	Inventory classified materials	100
E184	Maintain master station logs	86
F306	Verify keying of cryptological equipment	86
I372	Conduct phone patches manually	86
E170	Identify and report equipment or supply problems	71
E177	Inventory equipment, tools, or supplies	71
I406	Receive, transmit, or relay emergency action messages (EAMs)	71
B69	Supervise Radio Communications Systems Journeymen (AFSC 3C151)	57
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	57
E182	Maintain classified materials	57
F242	Key secure cryptographic systems	57
I412	Reset EAM alarms	57
J419	Identify cryptographic equipment malfunctions	57
J430	Identify terminal malfunctions	57
C94	Evaluate personnel for compliance with performance standards	43
C104	Inspect personnel for compliance with military standards	43
C108	Write EPRs	43
E179	Maintain accountability records for classified materials or documents	43
E190	Maintain security forms for safes, containers, or rooms	43
E224	Update equipment status reports, such as files, logs, or boards	43
F256	Select antennas using patch panels	43
G323	Configure consoles or terminals for phone patch operations	43
J417	Identify computer equipment malfunctions	43
J431	Identify transceiver malfunctions	43
J432	Identify transmitter malfunctions	43

TABLE A8

GLOBAL HF RADIO OPERATOR
(ST073, N=236)

TASKS		PERCENT MEMBERS PERFORMING
I393	Perform radio checks	91
E159	Destroy classified materials	86
I406	Receive, transmit, or relay emergency action messages (EAMs)	86
I368	Authenticate message traffic using transmission authentication systems	85
I395	Perform time hacks	82
I408	Receive, transmit, or relay foxtrot broadcasts	82
I369	Authenticate stations using challenge-and-reply systems	81
E219	Set station clocks	78
E176	Inventory classified materials	76
F253	Rotate antennas using radio dial codes	75
E160	Document destruction of classified materials	74
G323	Configure consoles or terminals for phone patch operations	73
H351	Change recording tapes	73
I372	Conduct phone patches manually	73
I384	Identify incoming calls using call-sign lists	73
J418	Identify console malfunctions	72
E169	Extract call-signs	67
E184	Maintain master station logs	67
G328	Configure equipment for simplex operations	65
G327	Configure equipment for duplex operations	64
I400	Receive and relay aircraft emergencies	64
E200	Post call-sign lists	62
I399	Prepare messages using HF voice format	61
H361	Perform operational checks of radio systems	60
J426	Identify receiver malfunctions	60
J427	Identify recording equipment malfunctions	58
E229	Verify accuracy of call-sign lists	57
F242	Key secure cryptographic systems	57
I414	Verify alert participants	56

TABLE A9

AFSATCOM TERMINAL OPERATOR
(ST095, N=66)

TASKS		PERCENT MEMBERS PERFORMING
E159	Destroy classified materials	94
E176	Inventory classified materials	94
L462	Configure consoles or terminals for secure or nonsecure voice or data communications	94
L483	Operate status display units (SDUs)	91
I412	Reset EAM alarms	89
L468	Configure SATCOM systems for time division multiplex (TDM) mode I operations	85
L478	Initiate or terminate satellite commands	85
I406	Receive, transmit, or relay emergency action messages (EAMs)	83
L471	Enter SATCOM messages into storage	83
L479	Load SATCOM command post synchronizers	83
E184	Maintain master station logs	82
L466	Configure SATCOM systems for random operations	82
L490	Transmit SATCOM messages	82
H349	Change paper in high speed printers	80
E160	Document destruction of classified materials	79
E219	Set station clocks	79
L477	Initiate communications supervisory commands	77
L461	Assume satellite communications (SATCOM) net controls and brief stations assuming net controls	73
E151	Change safe or lock combinations	71
E229	Verify accuracy of call-sign lists	71
I368	Authenticate message traffic using transmission authentication systems	71
I384	Identify incoming calls using call-sign lists	71
I396	Prepare messages using AFSATCOM format	71
L469	Configure SATCOM systems for TDM mode II operations	71
E169	Extract call-signs	70
J430	Identify terminal malfunctions	70

TABLE A10

SPECIAL OPERATIONS SQUADRON RADIO OPERATOR
(ST100, N=9)

TASKS		PERCENT MEMBERS PERFORMING
E159	Destroy classified materials	100
I393	Perform radio checks	100
E176	Inventory classified materials	89
I400	Receive and relay aircraft emergencies	89
I407	Receive, transmit, or relay facsimile messages	89
E160	Document destruction of classified materials	78
E182	Maintain classified materials	78
E184	Maintain master station logs	78
F232	Connect or disconnect antennas to radio equipment	78
F242	Key secure cryptographic systems	78
I401	Receive and relay departure reports	78
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	67
E152	Compile information for records, reports, or logs	67
F243	Load or unload radio equipment	67
G340	Configure transceivers for secure voice operations	67
I403	Receive and relay position reports	67
N531	Maintain personal mobility bags	67
E190	Maintain security forms for safes, containers, or rooms	56
E224	Update equipment status reports, such as files, logs, or boards	56
F248	Pack or unpack pallets	56
G329	Configure facsimile equipment	56
I402	Receive and relay execution checklist messages	56
I409	Receive, transmit, or relay service messages, such as notice-to-airmen (NOTAM) or pilot reports (PIREPS)	56
I410	Receive, transmit, or relay special weather broadcast messages	56
N533	Pack mobility equipment for shipment or movement	56
E169	Extract call-signs	44
H361	Perform operational checks of radio systems	44
N544	Store classified materials at deployed locations	44

TABLE A11

MOBILITY/TACTICAL RADIO OPERATOR
(ST080, N=140)

TASKS		PERCENT MEMBERS PERFORMING
F232	Connect or disconnect antennas to radio equipment	98
F231	Connect or disconnect antenna couplers	95
F262	Set up antenna masts	95
F243	Load or unload radio equipment	90
H347	Adjust antenna guy lines or ropes	89
I393	Perform radio checks	89
F233	Connect or disconnect auxiliary mobile field generators	88
F244	Orient high frequency (HF) tactical antennas	86
F278	Set up HF whip antennas	86
F236	Connect or disconnect cryptographic equipment	84
N531	Maintain personal mobility bags	82
F268	Set up HF dipole antennas	80
F248	Pack or unpack pallets	79
H361	Perform operational checks of radio systems	79
F242	Key secure cryptographic systems	76
N533	Pack mobility equipment for shipment or movement	76
E159	Destroy classified materials	75
F298	Site radio antennas	74
N517	Camouflage equipment or personnel	74
F303	Tune transceivers to obtain readable signals	72
N523	Erect or dismantle tents or shelters	72
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	71
F252	Reconfigure antennas	71
F282	Set up mobile or transportable HF/single sideband (SSB)	71
F299	Site radio equipment	71
E176	Inventory classified materials	70
I369	Authenticate stations using challenge-and-reply systems	70
E184	Maintain master station logs	69
F241	Install grounding systems	69

TABLE A12

MARS RADIO OPERATOR
(ST070, N=31)

TASKS		PERCENT MEMBERS PERFORMING
I393	Perform radio checks	97
I370	Check stations into or out of the net	90
I371	Conduct net roll calls	87
E184	Maintain master station logs	81
I372	Conduct phone patches manually	81
I388	List traffic with net control stations	81
E219	Set station clocks	71
I379	Direct users to tune to your count	71
I399	Prepare messages using HF voice format	71
E187	Maintain position logs	68
I390	Notify stations of frequency changes	68
I389	Monitor frequency standards of stations on net	61
F303	Tune transceivers to obtain readable signals	55
G315	Change transceiver frequencies manually	55
I395	Perform time hacks	55
I377	Determine operating frequencies	45
E153	Conduct traffic analyses	42
G323	Configure consoles or terminals for phone patch operations	42
E159	Destroy classified materials	39
H361	Perform operational checks of radio systems	39
E152	Compile information for records, reports, or logs	35
E174	Initiate electronic mail (E-mail)	35
G312	Change receiver frequencies manually	35
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	32
E160	Document destruction of classified materials	32
E176	Inventory classified materials	32
E180	Maintain administrative files	32
E185	Maintain military affiliate radio system (MARS)	32
G337	Configure transceivers for clear voice operations	32
E197	Monitor frequencies for interference among users	29

TABLE A13

COMMAND, CONTROL, COMMUNICATIONS RADIO OPERATOR
(ST145, N=5)

TASKS		PERCENT MEMBERS PERFORMING
F232	Connect or disconnect antennas to radio equipment	100
F231	Connect or disconnect antenna couplers	80
F262	Set up antenna masts	80
F268	Set up HF dipole antennas	80
F271	Set up HF inverted V antennas	80
F273	Set up HF long wire antennas, other than sloping long wire	80
F277	Set up HF sloping V antennas	80
E159	Destroy classified materials	60
E187	Maintain position logs	60
F233	Connect or disconnect auxiliary mobile field generators	60
F242	Key secure cryptographic systems	60
F243	Load or unload radio equipment	60
F270	Set up HF inverted L antennas	60
F303	Tune transceivers to obtain readable signals	60
I406	Receive, transmit, or relay emergency action messages (EAMs)	60
E160	Document destruction of classified materials	40
F275	Set up HF near vertical incidents skywave (NVIS) antennas	40
F278	Set up HF whip antennas	40
H347	Adjust antenna guy lines or ropes	40
I393	Perform radio checks	40
E199	Post access lists	20
F244	Orient high frequency (HF) tactical antennas	20
F276	Set up HF sloping long wire antennas	20
F288	Set up radio equipment for remote operations	20
F302	Tune receivers to obtain readable signals	20
F304	Tune transceivers to produce readable signals	20
G311	Change receiver frequencies by remote control	20
H357	Inspect communications equipment cables or cable connections	20
I368	Authenticate message traffic using transmission authentication systems	20
I399	Prepare messages using HF voice format	20

TABLE A14

TELEPHONE SWITCHBOARD OPERATOR
(ST052, N=49)

TASKS		PERCENT MEMBERS PERFORMING
M492	Accept and connect calls	100
M506	Place calls	98
M510	Set up telephone conference calls	96
M498	Initiate high-precedence calls	84
M497	Coordinate switchboard circuit or equipment problems with maintenance, technical control, or support agencies	82
M504	Maintain telephone directories	82
M509	Reroute calls	73
M503	Maintain switchboard instructions for emergencies, such as fire, crash, or attack	69
M505	Monitor high-precedence or emergency calls	69
M496	Compile telephone directories	65
M513	Test switchboard circuits	63
E184	Maintain master station logs	61
M493	Answer supervisory lights	55
M511	Supervise minimize condition actions	51
D118	Conduct OJT	47
M501	Maintain master telephone information files for information services	47
M494	Book calls	41
E174	Initiate electronic mail (E-mail)	40
A25	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	39
C108	Write EPRs	35
M502	Maintain precedence call control number logs	33
C75	Conduct performance feedback worksheet (PFW) evaluation sessions	31
M495	Compile information for switchboard traffic routing diagrams	29
M508	Provide call progress information	29
E163	Draft or write outage reports	27
M507	Prepare toll tickets	20